HITACHI

Inspire the Next

SERVICE MANUAL

NTSC

PLC-1 / AVC5-UB Chassis

PA

No. 0196

32HDL51M: PLC1

R/C: CLU-3841WL
(P# HL02061)

TO GO TO A CHAPTER, CLICK ON ITS HEADING BELOW

CONTENTS

SAFETY PRECAUTIONS 2
PRODUCT SAFETY NOTICE 3
SERVICING PRECAUTIONS 4
AGENCY REGULATORY INFORMATION 9
ACKNOWLEDGMENTS AND TRADEMARKS 10
INTRODUCTION 21
SPECIFICATION FEATURE 22
FINAL SET ADJUSTMENT 28
TROUBLESHOOTING FLOWCHARTS 34
CONNECTION DIAGRAMS 38
BLOCK DIAGRAMS 39
DC VOLTAGE AT CONNECTORS 43
BASIC CIRCUIT DIAGRAMS 46
IMPORTANT / SAFETY COMPONENTS 52
IC'S AND UNITS 54
EXPLODED VIEW 56
DRESSING DRAWING 59
PRINTED CIRCUIT BOARDS 63
REPLACEMENT PARTS LIST 66

CAUTION: These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Before servicing this chassis, it is important that the service technician read the "IMPORTANT SAFETY INSTRUCTIONS" in this service manual.

SAFETY NOTICE
USE ISOLATION TRANSFORMER WHEN SERVICING

Components having special safety characteristics are identified by a ⚠ on the schematics and on the parts list in this Service Data and its supplements and bulletins. Before servicing the chassis, it is important that the service technician read and follow the "Important Safety Instructions" in this Service Manual.

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

LCD TV MONITOR

SEPTEMBER 2004 **HHEA-MANUFACTURING DIVISION**

SAFETY PRECAUTIONS

NOTICE: Comply with all cautions and safety-related notes located on or inside the cover case and on the chassis or plasma module.

WARNING: Since the chassis of the AVC unit and Plasma Panel unit is connected to both sides of the AC power supply during operation, whenever the receiver is plugged in, service should not be attempted by anyone unfamiliar with the precautions necessary when working on this type of receiver.

1. When service is required, an isolation transformer should be inserted between power line and the receiver before any service is performed on a "HOT" chassis receiver.

2. When replacing a chassis in the receiver, all the protective devices must be put back in place, such as barriers, non-metallic knobs, insulating cover-shields, and isolation resistors, capacitors, etc.

3. When service is required, observe the original lead dress.

4. Always use manufacturer's replacement components. Critical components as indicated on the circuit diagram should not be replaced by another manufacturer's. Furthermore, where a short circuit has occurred, replace those components that indicate evidence of over heating.

5. Before returning a serviced receiver to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the receiver by the manufacturer has become defective, or inadvertently defeated during servicing.

Therefore, the following checks should be performed for the continued protection of the customer and service technician.

Leakage Current Cold Check

With the AC plug removed from the 120V AC 60Hz source, place a jumper across Line 1 and Line 2 of the three plug prongs, do not connect with the third prong, which is physical ground.

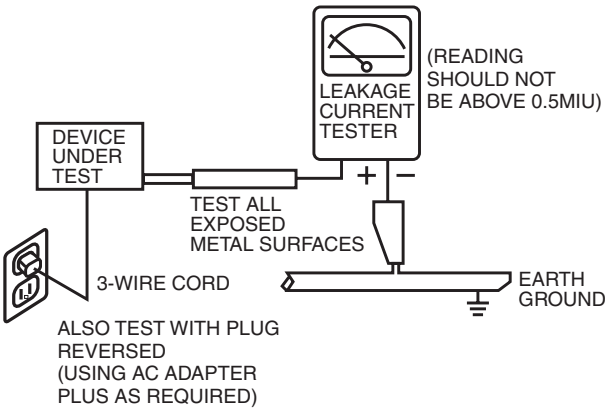
Using an insulation tester (DC500V), connect one of its leads to the AC plug jumper and touch with the other lead each exposed metal part (antennas, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis should have a resistor reading over 4MΩ. Any resistance value below this range indicates an abnormality which requires corrective action. An exposed metal part not having a return path to the chassis will indicate an open circuit.

Leakage Current Hot Check

This check must be done considering the AVC or the PDP monitor as one instrument each.

With any of the instruments completely reassembled (being the instrument either the AVC center or the PDP monitor), plug the AC line cord directly into a 120V AC outlet. (Do not use an isolation transformer during this test.) Use a leakage current tester or a metering system that complies with the American National Standards Institute (ANSI) C101.0 Leakage Current for Appliances. In the case of the PDP monitor set the AC switch first in the ON position and then in the OFF position, measure from across Line 1 and Line 2 of the three plug prongs, do not connect with the third prong, which is physical ground, to all exposed metal parts of the instrument (antennas, handle bracket, metal cabinet, screw heads, metallic overlays, control shafts, etc.), especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 0.5 MIU. Reverse the instrument power cord plug in the outlet and repeat test.

AC LEAKAGE TEST



ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE RECEIVER TO THE CUSTOMER.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in HITACHI television receivers have special safety-related characteristics. These are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified with a ⚠ mark in the schematics and parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the HITACHI-recommended replacement component, shown in the parts list in this Service Manual, may create shock, fire, X-radiation, or other hazards.

Product safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current HITACHI Service Manual. A subscription to, or additional copies of HITACHI Service Manuals may be obtained at a nominal charge from HITACHI Sales Corporation.

AVC76L - Audio Video Control Unit

32HDL51M - LCD TV Monitor Unit

1. Follow the general caution recommendations from “Safety precautions” section.
2. If necessary to replace Panel module, this work must be started after the panel module and the AC/DC Power supply becomes sufficiently cool.
3. Special care must be taken with the display area to avoid damaging its surface.
4. The Panel Module shall not be touched with bare hands to protect its surface from stains.
5. It is recommended to use clean soft gloves during the replacing work of the Panel module in order to protect, not only the display area of the panel module but also the serviceman.
6. Signal, power supply P.W.B.’s and LCD driving circuits P.W.B.’s are assembled on the rear side of the LCD module, take special care with this fragile circuitry; particularly, Flexible Printed Circuits bonded to surrounding edges of the panel. They are not strong enough to withstand harsh outer mechanical forces. Avoid touching the flexible printed circuits by not only your hands, but also tools, chassis, or any other object. Extreme bending of the connectors must be avoided too. In case the flexible printed circuits are damaged, the corresponding addressed portions of the screen will not be lit and exchange of the panel will be required.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health and Safety Code, Section 25249.5).

When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with solder. Also, when soldering make sure you are in a well ventilated area in order to avoid inhalation of any smoke or fumes released.

SAFETY NOTICE
USE ISOLATION TRANSFORMER
WHEN SERVICING

POWER SOURCE

This plasma television and the AVC Center is designed to operate on 120 Volts/60Hz, AC house current. Insert the power cord into a 120 Volts/60Hz outlet.

NEVER CONNECT THE PLASMA AND THE AVC CENTER TO OTHER THAN THE SPECIFIED VOLTAGE OR TO DIRECT CURRENT AND TO 50HZ. TO PREVENT ELECTRIC SHOCK, DO NOT USE THE PLASMA TELEVISION’S (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE, OR THE OUTLETS UNLESS THE BLADES AND GROUND TERMINAL CAN BE FULLY UNSERTED TO PREVENT BLADE EXPOSURE.

SERVICING PRECAUTIONS

CAUTION: Before servicing instruments covered by this service data and its supplements and addenda, read and follow the "Important Safety Instructions" on page 3 of this publication.

NOTE: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions on page 3 of this publication, always follow the safety precautions. Remember: Safety First.

General Servicing Guidelines

1. Always unplug the instrument AC power cord from the AC power source before:
   a. Removing or reinstalling any component, circuit board, module, or any other instrument assembly.

   b. Disconnecting or reconnecting any instrument electrical plug or other electrical connection.

   c. Connecting a test substitute in parallel with an electrolytic capacitor in the instrument.

   CAUTION: A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.

2. Do not spray chemicals on or near this instrument or any of its assemblies.

3. Unless specified otherwise in these service data, clean electrical contacts by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable nonabrasive applicator: 10% (by volume) Acetone and 90% (by volume) isopropyl alcohol (90%-99% strength).
   CAUTION: This is a flammable mixture. Unless specified otherwise in these service data, lubrication of contacts is not required.

4. Do not defeat any plug/socket of voltage interlocks with which instruments covered by this service data might be equipped.

5. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat-sinks are correctly installed.

6. Always connect the test instrument ground lead to the appropriate instrument chassis ground before connecting the test instrument positive lead. Always remove the test instrument ground lead last.

7. Use with this instrument only the test fixtures specified in this service data.
   CAUTION: Do not connect the test fixture ground strap to any heatsink in this instrument.

Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.

2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.

3. Use only a grounded-tip soldering iron to solder or desolder ES devices.

4. Use only an anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES device.

5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.

6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material.)

7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

General Soldering Guidelines

1. Use a grounded-tip, low-wattage soldering iron and appropriate tip size and shape that will maintain tip temperature within the range 500°F to 600°F.

2. Use an appropriate gauge of resin-core solder composed of 60 parts tin/40 parts lead.

3. Keep the soldering iron tip clean and well-tinned.

4. Thoroughly clean the surfaces to be soldered. Use a small wire-bristle (0.5 inch or 1.25 cm) brush with a metal handle. Do not use freon-propelled spray-on cleaners.

5. Use the following desoldering technique.
   a. Allow the soldering iron tip to reach normal temperature (500°F to 600°F).

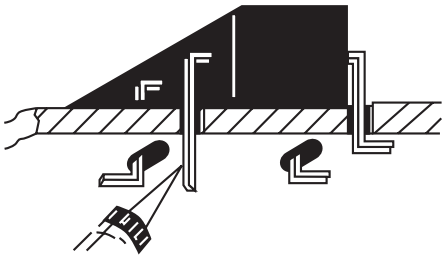
   b. Heat the component lead until the solder melts. Quickly draw away the melted solder with an anti-static, suction-type solder removal device or with solder braid.
      CAUTION: Work quickly to avoid overheating the circuit board printed foil.

6. Use the following soldering technique.
   a. Allow the soldering iron tip to reach normal temperature (500°F to 600°F).

   b. First, hold the soldering iron tip and solder strand against the component lead until the solder melts.

   c. Quickly move the soldering iron tip to the junction of the component lead and the printed circuit foil, and hold it there only until the solder flows onto and around both the component lead and the foil.
      CAUTION: Work quickly to avoid overheating the circuit board printed foil or components.

   d. Closely inspect the solder area and remove any excess or splashed solder with a small wire-bristle brush.



Use Soldering Iron to Pry Leads

IC Removal/Replacement

Some Hitachi unitized chassis circuit boards have slotted holes (oblong) through which the IC leads are inserted and then bent flat against the circuit foil. When holes are the slotted type, the following technique should be used to remove and replace the IC. When working with boards using the familiar round hole, use the standard technique as outlined in paragraphs 5 and 6 above.

Removal

1. Desolder and straighten each IC lead in one operation by gently prying up on the lead with the soldering iron tip as the solder melts.

2. Draw away the melted solder with an anti-static suction-type solder removal device (or with solder braid) before removing the IC.

Replacement

1. Carefully insert the replacement IC in the circuit board.

2. Carefully bend each IC lead against the circuit foil pad and solder it.

3. Clean the soldered areas with a small wire-bristle brush. (It is not necessary to reapply acrylic coating to areas.)

"Small-signal" Discrete Transistor Removal/Replacement

1. Remove the defective transistor by clipping its leads as close as possible to the component body.

2. Bend into a "U" shape the end of each of the three leads remaining on the circuit board.

3. Bend into a "U" shape the replacement transistor leads.

4. Connect the replacement transistor leads to the corresponding leads extending from the circuit board and crimp the "U" with long nose pliers to insure metal to metal contact, then solder each connection.

Power Output Transistor Devices Removal/Replacements

1. Heat and remove all solder from around the transistor leads.

2. Remove the heatsink mounting screw (if so equipped).

3. Carefully remove the transistor from the circuit board.

4. Insert new transistor in circuit board.

5. Solder each transistor lead, and clip off excess lead.

6. Replace heatsink.

Diode Removal/Replacement

1. Remove defective diode by clipping its leads as close as possible to diode body.

2. Bend the two remaining leads perpendicularly to the circuit board.

3. Observing diode polarity, wrap each lead of the new diode around the corresponding lead on the circuit board.

4. Securely crimp each connection and solder it.

5. Inspect (on the circuit board copper side) the solder joints of the two "original leads". If they are not shiny, reheat them and, if necessary, apply additional solder.

Fuses and Conventional Resistor Removal/Replacement

1. Clip each fuse or resistor lead at top of circuit board hollow stake.

2. Securely crimp leads of replacement component around stake 1/8 inch from top.

3. Solder the connections.
   CAUTION: Maintain original spacing between the replaced component and adjacent components and the circuit board, to prevent excessive component temperatures.

Circuit Board Foil Repair

Excessive heat applied to the copper foil of any printed circuit board will weaken the adhesive that bonds the foil to the circuit board, causing the foil to separate from, or "lift-off," the board. The following guidelines and procedures should be followed whenever this condition is encountered.

In Critical Copper Pattern Areas

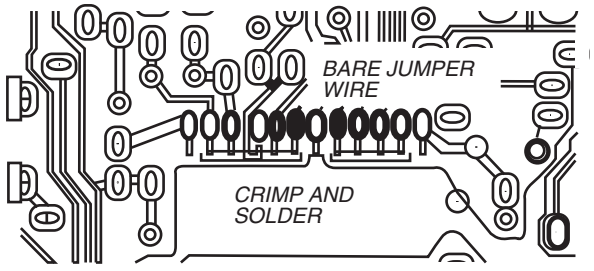
High component/copper pattern density and/or special voltage/current characteristics make the spacing and integrity of copper pattern in some circuit board areas more critical than in others. The circuit foil in these areas is designated as Critical Copper Pattern. Because Critical Copper Pattern requires special soldering techniques to ensure the maintenance of reliability and safety standards, contact your Hitachi personnel.

At IC Connections

To repair defective copper pattern at IC connections, use the following procedure to install a jumper wire on the copper pattern side of the circuit board. (Use this technique only on IC connections.)

1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary.)

2. Carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.



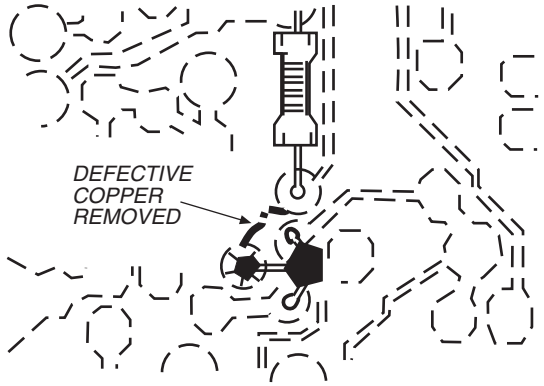
Install Jumper Wire and Solder

3. Bend a small "U" in one end of a small-gauge jumper wire and carefully crimp it around the IC pin. Solder the IC connection.

4. Route the jumper wire along the path of the cut-away copper pattern and let it overlap the previously scraped end of the good copper pattern. Solder the overlapped area, and clip off any excess jumper wire.

At Other Connections

Use the following technique to repair defective copper pattern at connections other than IC Pins. This technique involves the installation of a jumper wire on the component side of the circuit board.



Insulated Jumper Wire

1. Remove the defective copper pattern with a sharp knife. Remove at least 1/4 inch of copper, to ensure hazardous condition will not exist if the jumper wire opens.

2. Trace along the copper pattern from both wire sides of the pattern break and locate the nearest component directly connected to the affected copper pattern.

3. Connect insulated 20-gauge jumper wire from the nearest component on one side of the pattern break to the lead of the nearest component on the other side. Carefully crimp and solder the connections.
   CAUTION: Be sure the insulated jumper wire is dressed so that it does not touch components or sharp edges.

NOTE: ***These components are affixed with glue. Be careful not to break or damage any foil under the component or at the pins of the ICs when removing. Usually applying heat to the component for a short time while twisting with tweezers will break the component loose.***

Leadless Chip Components (surface mount)

Chip components must be replaced with identical chips due to critical foil track spacing. There are no holes in the board to mount standard transistors or diodes. Some chip capacitor or resistor board solder pads may have holes through the board, however the hole diameter limits standard resistor replacement to 1/8 watt. Standard capacitors may also be limited for the same reason. It is recommended that identical chip components be used. .

Chip resistors have a three digit numerical resistance code -1st and 2nd significant digits and a multiplier. Example: 162 = 1600 or 1.6KΩ resistor, 0 = 0Ω (jumper).

Chip capacitors generally do not have the value indicated on the capacitor. The color of the component indicates the general range of the capacitance.

Chip transistors are identified by a two letter code. The first letter indicates the type and the second letter, the grade of transistor.

Chip diodes have a two letter identification code as per the code chart and are a dual diode pack with either

common anode or common cathode. Check the parts list for correct diode number.

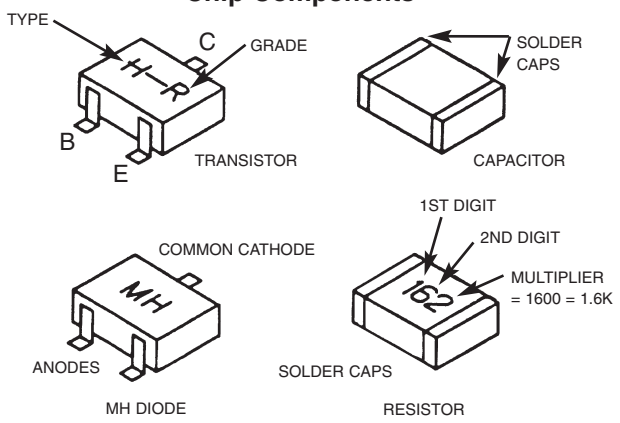
Component Removal

1. Use solder wick to remove solder from component end caps or terminals.
2. Without pulling up, carefully twist the component with tweezers to break the adhesive.
3. Do not reuse removed leadless or chip components since they are subject to stress fracture during removal .

Chip Component Installation

1. Put a small amount of solder on the board soldering pads.
2. Hold the chip component against the soldering pads with tweezers or with a miniature alligator clip and apply heat to the pad area with a 30 watt iron until solder flows. Do not apply heat for more than 3 seconds

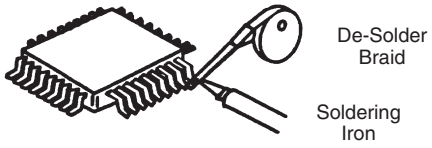
Chip Components



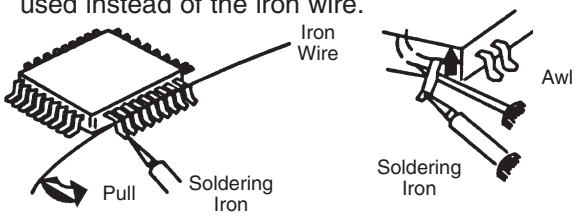
How to Replace Flat-IC —Required Tools—

- Soldering iron
- De-solder braids
- iron wire or small awl
- Magnifier

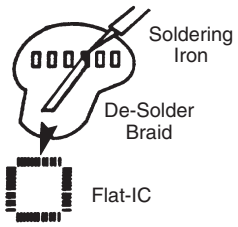
1. Remove the solder from all of the pins of a Flat-IC by using a de-solder braid.



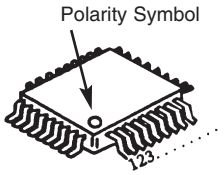
2. Put the iron wire under the pins of the Flat-IC and pull it in the direction indicated while heating the pins using a soldering iron. A small awl can be used instead of the iron wire.



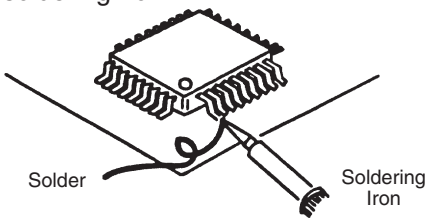
3. Remove the solder from all of the pads of the Fiat-IC by using a de-solder braid.



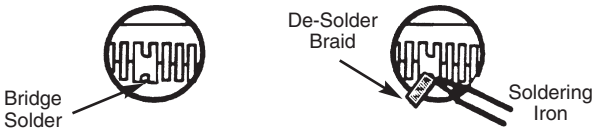
4. Position the new Flat-IC in place (apply the pins of the Flat-IC to the soldering pads where the pins need to be soldered). Properly determine the positions of the soldering pads and pins by correctly aligning the polarity symbol.



5. Solder all pins to the soldering pads using a fine tipped soldering iron.



6. Check with a magnifier for solder bridge between the pins or for dry joint between pins and soldering pads. To remove a solder bridge, use a de-solder braid as shown in the figure below.



Information for service about lead-free solder introduction

Hitachi introduced lead-free solder to conserve the "Earth Environment".
Please refer to the following before servicing.

(1) Characteristic of lead-free solder

Melting point of lead free solder is 40-50°C higher than solder containing lead.

(2) Solder for service

Following composition is reccomended.

" Sn - 3.0Ag - 0.5Cu " , or " Sn - 0.7 Cu "

Lead solder can be used, but there is a possibility of failure due to insufficient strength of the solder.

Caution when using solder containing lead.

Please remove previous solder as much as possible from the soldering point.
When soldering, please perfectly melt the lead-free solder to mix well with the previous solder.

(3) Soldering iron for lead-free solder.

Melting point of lead-free solder is higher than solder containing lead.
Use of a soldering tool "with temperature control" and "with much thermal capacitance" is reccomended.
(Reccomended temperature control : 320°C - 450°C)

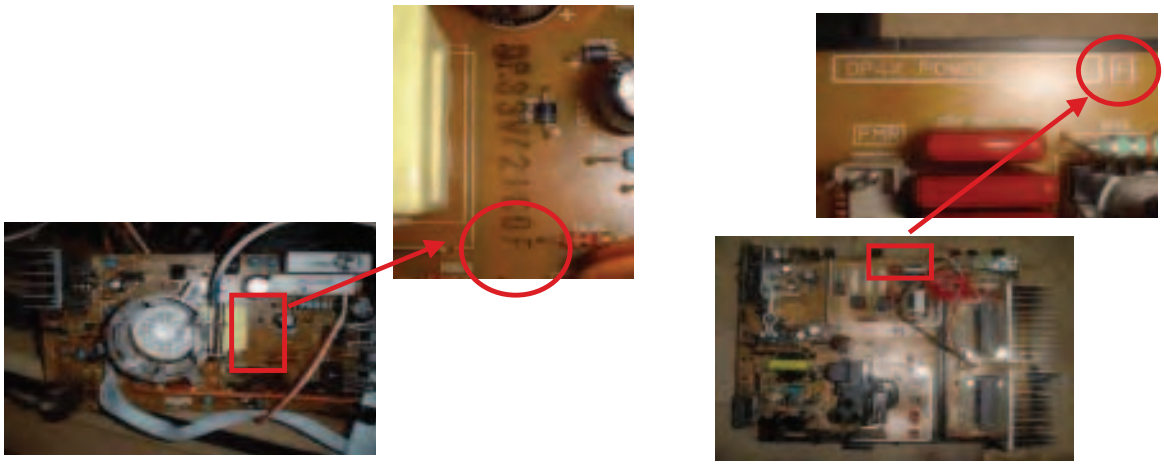
Reccomended temperature

PWB with chip parts	320°C +/- 30°C
PWB without chip parts	380°C +/- 30°C
Chassis, metal, shield etc.	420°C +/- 30°C

(4) Identification of lead-free PWB

2003 models	>> not applied
2003 models	>> mixed
2004 models	>> lead-free solder is intoduced

On lead-free PWB, "F" is added at the end of stamp on PWB. (e.g. DP33W**F**)



AGENCY REGULATORY INFORMATION

Federal Communications Commission Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Hitachi Home Electronics (America), Inc. may void the user's warranty.

Cables

Connections to this device must be made with shielded cables with metallic RFI/EMI connector hoods to maintain compliance with FCC Rules and Regulations.

Any cables that are supplied with the system must be replaced with identical cables in order to assure compliance with FCC rules. Order Hitachi spares as replacement cables.

Declaration of Conformity

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

For questions regarding this declaration, contact:

Hitachi America, LTD.
Home Electronics Division
900 Hitachi Way
Chula Vista, CA 91914
Tel. 1-800-448-2244 (1-800-HITACHI)
ATTN: CUSTOMER RELATIONS

ACKNOWLEDGMENTS AND TRADEMARKS

This LCD Television complies with VESA DDC2B specifications, Plug & Play is a system with computer, peripherals (including monitors) and operating system. It works when the monitor is connected to a DDC ready computer that is running an operating system software that is capable for the plug & play.

When a Plug and Play PC is powered on, it sends a command to the Monitor requesting identification. The Monitor sends back a string of data including its characteristics.

TRADEMARK ACKNOWLEDGMENT

DDC™ is a trademark of Video Electronics Standard Association.
IBM PC/AT and VGA are registered trademarkds of International Business Machines Corporation of the U.S.A.
Apple and Macintosh are registered trademarks of Apple Computer, Inc.
VESA is a trademark of a nonprofit organization, Video Electronics Standard Association.

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Cable Compatible Television Apparatus- Tèlèvision câblocompatible, Canada.

Notes on Closed Caption:
This LCD Television receiver will display television closed captioning, (CC or), in accordance with paragraph 15.119 of the FCC rules.

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Hitachi RS232C Communication Specification

This document defines the detailed RS232C control protocol for the following Hitachi LCD TV Monitor:

Model: 32HDL51M

The Information enclosed is subject to change without notice. Please refer to revision number shown above when inquiring about product support.

1. Hardware Interface

1.1- The cable interface to the monitor is a 9 pin D-Sub type.
1.2- The gender of the 9 pin D-sub on the monitor is female. Therefore, the cable interface to the monitor should be male.
1.3- The cable is configured in a null modem wiring scheme
1.4- A pin reference illustrations is provided below:

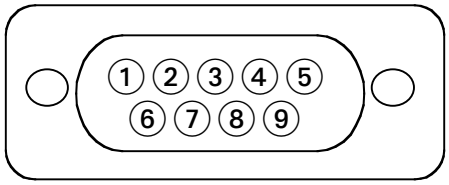


Figure. 1 (a) Male 9 pin D-sub (Outside View)

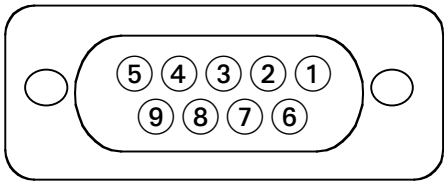


Figure. 1 (b) Female 9 pin D-Sub (Outside View)

Pin #	Signal	Remark
1	NC	
2	RXD0	PTV ← Control PC
3	TXD0	PTV → Control PC
4	NC	
5	GND	PTV ↔ PC GND
6	NC	
7	NC	
8	NC	
9	NC	
Frame	GND	

1.5- Electric: Electrical specification is based on the current RS232C standard.

2. Communication Format

2.1- Port Configuration

(1) Communications System: Asynchronous
(2) Bit Rate: 9600 bps
(3) Data Length: 7 bit
(4) Parity: None
(5) Start Bit: None
(6) Stop Bit: 1 bit

2.2- Data Format

(1) **Terminal Mode control format** (Turning on and Off Terminal Mode)

- Terminal On is achieved by sending a 1 byte command of 05 (Hex).
- Terminal Off is achieved by sending a 1 byte command of 04 (Hex)

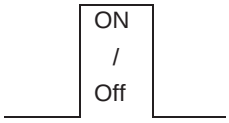


Figure. 2

(2) **Terminal Communication Format** (Sending Commands to TV)

- Commands are sent to the TV in 14 byte strings
- The strings consist of the following:

Start*:* 1 byte (02) Hex (STX)
Command: 12 byte
Stop: 1 Byte (03) Hex (ETX)

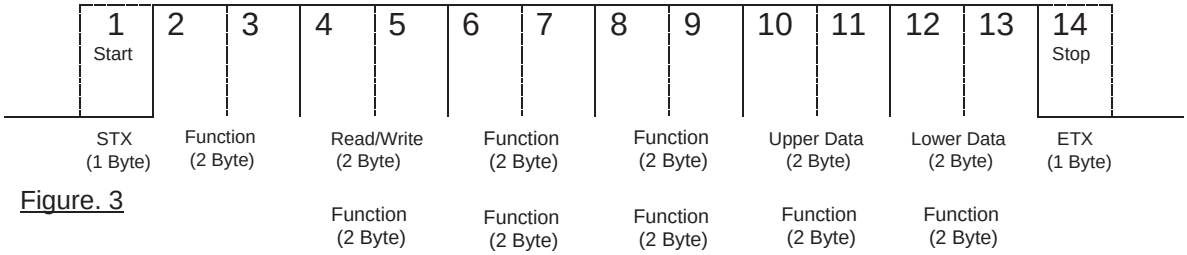


Figure. 3

(3) **Television Answer Format** (Showing current Status)

- The television responds with a 6 byte answer strings as follows:

Start: 1 byte (02) Hex (STX)
Response: 4 byte (Upper Data/Lower Data)
Stop: 1 Byte (03) Hex (ETX)

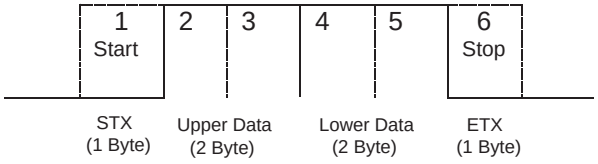


Figure. 4

(4) **Television Answer Format** (Status of Command Execution)

- Acknowledgement: (06) Hex (ACK)
- No Acknowledgement: (15) Hex (NAK)

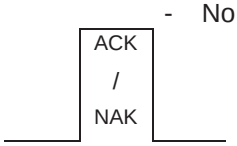


Figure. 5

3. Communication Protocol

3.1- Terminal Mode (Communication between television and external PC)

- When the RS232C mode is set from Off to On by the television OSD menu and the TXD2 and RXD2 serial communication lines are switched to AV control, the television can communicate with an external PC.

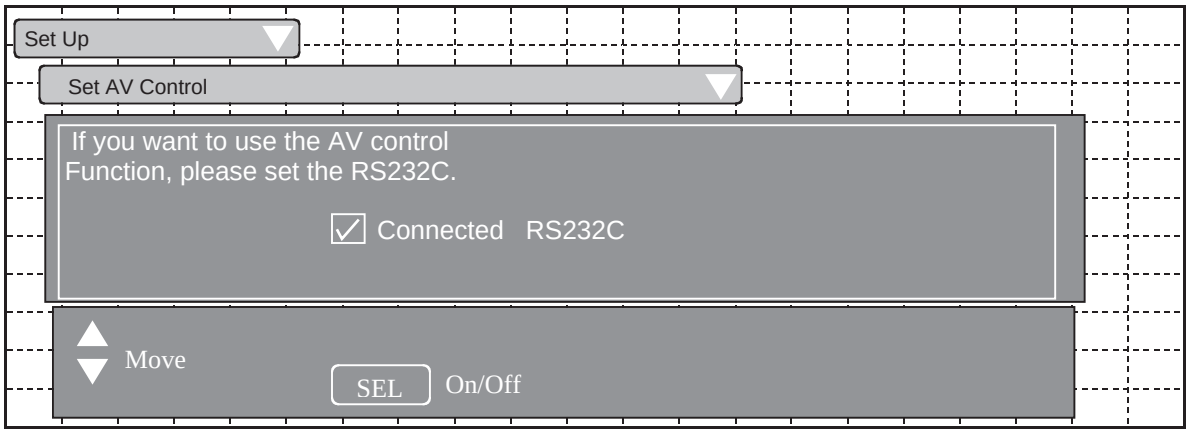


Table 3.2.1 Terminal Mode Control

Terminal Mode Switching		Projection Television	
		Command sent to PTV	Response from PTV
ON	Action	Request On	Accept / Reject
	Character	ENQ	ACK/NAK
	Code (Hex)	05	06/15
OFF	Action	Request OFF	Accept / Reject
	Character	EOT	ACK/NAK
	Code (Hex)	04	06/15

(1) External PC can turn terminal mode On and Off.
(2) Communication is prohibited when terminal mode is Off.
(3) When terminal mode is on, Front Keys and Remote do not operate. The only button that will operate is main power.
(4) When TV set is turned Off and On, terminal mode remains in its current state
(5) Factory Setting: Terminal Mode is Off and AV Control Mode is Off.
(6) The television will always respond when an attempt to turn terminal mode on or off is made with either an ACK or a NAK.
(7) In the following cases, even if the check box of menu is checked, Terminal mode cannot be turned on.
    - Adjust mode
    - While Event Timer and Timer Recording
    - While Auto CH scan operates
    - While Magic Focus operates
    - While upgrade operates
(8) Write function in terminal mode will write data to the EEPROM in the same manner as when unit is operated in Normal Mode through the OSD.
(9) For OSD functionality in terminal mode, see table 5.

3.2- Command Summary (Sending and Receiving Data)

3.2.1- Data received by Television

- TV will accept data from the PC when it is properly formatted as shown in table 3.2.1.1 only when the Terminal Mode is ON.
- The command length is 12 bytes with a start and stop byte. Therefore total command strings are 14 bytes
- The command consists of 6 Hex codes from 1st to 6th as shown below. (Total 12 bytes)
- All command strings should be described in character code and then converted to Hex Code.
- Table 3.2.1.2 shows the 3 types of command formats
- All commands are classified into these 3 types of command by the 1st and 2nd command byte.

Table 3.2.1.1 Communication format received by Television

	Start													Stop
Received byte #	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Contents Of Commands	Start	1st Function		2nd R/W		3rd Upper byte *(Function)*		4th Lower byte *(Function)*		5th Upper byte *(Data)*		6th Lower byte *(Data)*		Stop
Character -Hex	STX	0~F	0~F	0~F	0~F	0~F	0~F	0~F	0~F	0~F	0~F	0~F	0~F	ETX
Code- Hex	02	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	03

*1 Character Code: "0"-"9" → 30-39, "A" - "F" → 41-46

Note- See code conversion examples in section 4 for conversion details.

Table 3.2.1.2 Format of Commands Received by Television (12 bytes)

Form No.	Action	Command (12 byte) 1st	2nd	3rd	4th	5th	6th
(a)	Reset Write/Read	Command (**)	Dummy (00)	Dummy (00)	Dummy (00)	Dummy (00)	Dummy (00)
(b)	Read Data	Command (**)	Operation (**)	Command (**)	Command (**)	Dummy (00)	Dummy (00)
(c)	Write Data	Command (**)	Operation (**)	Command (**)	Command (**)	Data (**)	Data (**)

3.2.2 Format of commands sent from television to PC

- Upon completion of a command sent to the television as shown in table 3.2.1.2, The television will respond with an answer as shown in table 3.2.2.
- In the event that a command is rejected by the television, an Hex 15 will be sent to the PC.

Table 3.2.2 Answer format from television to PC

	Communication Normal/Error	When requesting read data only from the TV To the PC, the following format applies					
Sent byte No.	1	1	2	3	4	5	6
Contents of the command	Accepted or Rejected	Start	Data Upper byte		Data Lower byte		Stop
Character (Hex)	ACK/NAK	STX	0~F	0~F	0~F	0~F	ETX
Code (Hex)	06/15	02	*1		*1		03

*1 Character Code: Example "0"-"9" → 30-39 , "A" - "F" → 41- 46

3.3 Command Table
3.3.1- 1st sub command (for function) table

Table 3.3.1 1st Sub Command and Adjustment Table

No.	Setting Function	Command 1st Hex	R/W Control	3rd/4th Hex	OSD	E2PROM	Command Format (*1)
1	POWER	6E	R/W	0000	Info	Write	(c)
2	INPUT	6F	R/W	0000	Info	Write	(c)
3	Volume	27	R/W	0000	Volume Bar		(c)
4	Balance	28	R/W	0000	No OSD		(c)
5	Treble	2B	R/W	0000	No OSD		(c)
6	Bass	2A	R/W	0000	No OSD		(c)
7	Audio Mute	29	R/W	0000	No OSD		(c)
8	Picture Mode	A4	R/W	0003	Day/Night		(c)
9	Contrast	59	R/W	0000	No OSD		(c)
10	Brightness	1F	R/W	0000	No OSD		(c)
11	Color	10	R/W	0000	No OSD		(c)
12	Tint	13	R/W	0000	No OSD		(c)
13	Sharpness	14	R/W	0000	No OSD		(c)
14	Color Temperature	60	R/W	0000	No OSD		(c)
15	Aspect	40	R/W	0000	Aspect (Info OSD)		(c)
16	INFO	B2	W	0000	Info		(c)
17	Direct CH 0~9	D0	W	0000	CH No.	Write	(c)
18	Direct CH -	D0	W	0001	CH No.	Write	(c)
19	Direct CH Select	D0	W	0002	CH No.	Write	(c)
20	Virtual HD	D3	R/W	0000	1080i/540p (Info OSD)		(c)
21	Auto Movie Mode	D4	R/W	0000	No OSD		(c)

3.3.2 2nd sub command (Read / Write) table
R : Read Only. 01 Hex can be accepted. Data (absolute value) will be read from the TV.
W : Write Only. 00(Hex) can be accepted. Data (absolute value) will be written to TV
R/W : Read and Write. Both 00 and 01 (Hex) can be accepted
When 01 (Hex) is sent to TV, the data (Absolute Value) will be read from TV
When 00 (Hex) is sent to T V, the data (absolute value will be written to TV
3.3.3 5th and 6th Data Command Table
The table below shows the specification for the 5th and 6th data bytes.
Table 3.3.3 Specification for 5th and 6th data bytes in normal command

No.	Transfer Data (Hex) 5th	6th	Note
1	Dummy Data	Dummy Data	
2	Dummy Data	Transfer Data (1 byte)	
3	Transfer Data (upper 1 byte)	Transfer Data (lower 1 byte)	

Note- Any data that is transferred as Dummy data will be ignored by both the PC and the TV
3.3.4 Setting Items (Data Range of Commands)
Table 3.3.4 (Setting Item List)

No.	Setting Item	5th / 6th Data Range	Initial Setting	Comments
1	Power	0: Off 1: On	0	
2	Input	0: Input 1 1: Input 2 2: Input 3 3: Input 4 4: Input 5 6: Ant. A 7: Ant. B 8: PC 9: Photo Input	-	
3	Volume	0~60 Step	20	
4	Balance	0~60 Step	30	
5	Treble	0~30 Step	15	
6	Bass	0~30 Step	15	
7	Audio Mute	0: Off 1: On	0	
8	Picture Mode	0: Day 1: Night	0	
9	Contrast	0~60 Step	60	
10	Brightness	0~60 Step	30	
11	Color	0~60 Step	30	
12	Tint	0~60 Step	30	
13	Sharpness	0~60 Step	30	
14	Color Temperature	0: High 1: Medium 2: Standard 3: Black & White	-	
15	Aspect	0: 16:9 Std. 1: 16:9 Zoom 2: 4:3 Std. 3: 4:3 Expand 4: 4:3 Zoom 5: 4:3 Zoom 2	-	
16	Info	0: Off 1: On	0	
17	Direct CH 0~9	Key Code 0~9-0~9	-	
18	Direct Channel (-)	0	-	
19	Direct Channel Select	0	-	
20	Virtual HD	0: 1080I 1: 540p	0	
21	Auto Movie Mode	0: Off 1: On (Auto)	0	

3.3.5 Combination Control Specification

(1) Active Terminal On/Off States

ï If you send a Terminal On command when the OSD is active, the OSD will disappear

- The remote control keys will also be invalid except for the Power button on the front of the unit.
- Closed Caption Display (CCD) function will be usable when in Terminal Mode

Table 3.3.5 (Variables of Activating Terminal On / Terminal Off)

	Terminal On Command	**Terminal Off Command**
Power On	Executable	Executable
Stand-By	Executable	Executable
Adjust Mode	Prohibited	Prohibited
When Auto-CH is operating	Prohibited	Prohibited
While Magic Focus is operating (On Magic Menu Mode)	Prohibited	Prohibited
While upgrade is operating	Prohibited	Prohibited
When Lock is Set When Lock is turned on (BLK/Mute)	Executable	Executable
When Sleep Timer is Active	Executable	Executable
When CableCARD is inserted When CableCARD is in Stand-By	Executable	Executable
When the Event Timer / Timer Record are set	Executable	Executable
When the Event Timer / Timer Record are operating	Prohibited	Prohibited
When Auto Link is in Stand-By	Executable	Executable
When Day/Night Timer is set	Executable	Executable
When Quick Start Up Stand-By is active	Executable	Executable

- If the Terminal Mode is turned on while the Sleep Timer is active and unit is powered off by the controller, the time values in the Sleep Timer will be cleared.
- The Event Timer/ Timer Rec. will not operate when the unit is Terminal Mode On.
- If the Terminal Mode is activated when the Auto Link Setting is in Stand-By, The Auto Link operation will be cancelled.
- The Urgent Broadcast Signal will take precedence when Terminal Mode is on with the CableCARD installed.
- The Magic Timer function is disabled when Terminal Mode is On.

(2) Other Terminal Control Considerations
- Terminal Mode will remain On when you turn the power supply Off or On.
- If the TV is unplugged at the wall outlet, the Terminal Mode will turn Off.
- If the TV is turned off in normal mode and the Terminal On command is sent, the unit can be turned on via RS232C.
- The commands executed in Terminal mode should be executed and displayed after exiting Terminal Mode.

(3) Command Execution

1- The time delay between 1 byte characters in a command string is 99mS. Any delay longer than 100mS will be cancelled and the unit will respond with a ìNACKî (16H).

2- When transmitting command strings, an ACK or NAK should be sent by the TV. However, this will not be the case when commands are re-executed or the command does not execute.

3- The framing delay between continuos commands is 32mS.

4- When communicating with the unit in Terminal Mode, the unit must respond with either an ACK or an NAK before sending it another command. Failure to do so will result in commands that are not executed.

5- Please note that when the Power on command is sent to the unit, it will be necessary to wait 12 seconds before sending any other command.

4. Command String Development Information

4.1- To assist with developing command strings, the table below shows a Hex character conversion chart

Table 4.1.1 Hex Character Conversion Chart

Hex Character	Hex Code
0	30
1	31
2	32
3	33
4	34
5	35
6	36
7	37
8	38
9	39

Hex Character	Hex Code
A	41
B	42
C	43
D	44
E	45
F	46

4.2 - An example of the proper coding technique is demonstrated below for the ìPower Onî Command.

Hex Character Set: 6E: Power Function
00: Write Function (Note- A ì01î would indicate a read function)
00: 3rd (Upper byte-Function)
00: 4th (Lower byte-Function)
00: 5th (Upper byte-Data)
01: 6th (Lower byte- Data

Hex Coded Data: 3645303030303030303031

Note- an STX (02-Hex) would be added at the start of the string and ETX (03-Hex) would be added at the end of the string to create a complete command.

4.3- Figure 6 shows the 14 byte string formatted in Hex Characters for the ìPower On Functionî.

1 Start	2	3	4	5	6	7	8	9	10	11	12	13	14 Stop
02	6	E	0	0	0	0	0	0	0	0	0	1	
STX (1 Byte)	Function (2 Byte)		Read/Write (2 Byte)		Function (2 Byte)		Function (2 Byte)		Upper Data (2 Byte)		Lower Data (2 Byte)		ETX (1 Byte)
			Function (2 Byte)		Function (2 Byte)		Function (2 Byte)		Function (2 Byte)		Function (2 Byte)		

Figure 6

4.4- Figure 7 shows the ìPower Onî function converted to Hex Code set

1 Start	2	3	4	5	6	7	8	9	10	11	12	13	14 Stop
02	36	45	30	30	30	30	30	30	30	30	30	31	
STX (1 Byte)	Function (2 Byte)		Read/Write (2 Byte)		Function (2 Byte)		Function (2 Byte)		Upper Data (2 Byte)		Lower Data (2 Byte)		ETX (1 Byte)
			Function (2 Byte)		Function (2 Byte)		Function (2 Byte)		Function (2 Byte)		Function (2 Byte)		

Figure 7

4.5- The following table provides the conversion strings for the "Write" commands

Table 4.5.1 Write Data Command Summary

No.	Item	Command	Initial Condition	Hex Character	Hex Code Set	Result
1	Power	On	0	6E0000000001	364530303030303030303031	Turns Power On
2	Power	Off	0	6E0000000000	364530303030303030303030	Turns Power Off
3	Input	Input 1	-	6F0000000000	364630303030303030303030	Input 1
4	Input	Input 2	-	6F0000000001	364630303030303030303031	Input 2
5	Input	Input 3	-	6F0000000002	364630303030303030303032	Input 3
6	Input	Input 4	-	6F0000000003	364630303030303030303033	Input 4
7	Input	Input 5	-	6F0000000004	364630303030303030303034	Input 5
8	Input	Antenna A		6F0000000006	364630303030303030303036	Antenna A
9	Input	Antenna B	-	6F0000000007	364630303030303030303037	Antenna B
10	Input	Photo Input	-	6F0000000009	364630303030303030303039	Photo Input
11	Volume	Set to 0	20	270000000000	323730303030303030303030	Set to 0
12	Balance	Set to 31	30	280000000031	323830303030303030303331	Set to 31
13	Treble	Set to 16	15	2B0000000016	324230303030303030303136	Set to 16
14	Bass	Set to16	15	2A0000000016	324130303030303030303136	Set to 16
15	Audio Mute	Set to off	0	290000000000	323930303030303030303030	Set to Off
16	Audio Mute	Set to On	0	290000000001	323930303030303030303031	Set to On
17	Picture Mode	Set to Day	0	A40000000000	413430303030303030303030	Set to Day
18	Picture Mode	Set to Night	0	A40000000001	413430303030303030303031	Set to Night
19	Contrast	Set to 59	60	590000000059	353930303030303030303539	Set to 59
20	Brightness	Set to 29	30	1F0000000029	314630303030303030303239	Set to 29
21	Color	Set to 29	30	100000000029	313030303030303030303239	Set to 29
22	Tint	Set to 29	30	130000000029	313330303030303030303239	Set to 29
23	Sharpness	Set to 29	30	140000000029	313430303030303030303239	Set to 29
24	Color Temperature	Set to High	-	600000000000	363030303030303030303030	Set to High
25	Color Temperature	Set to Medium	-	600000000001	363030303030303030303031	Set to Medium
26	Color Temperature	Set to Standard	-	600000000002	363030303030303030303032	Set to Standard
27	Color Temperature	Set to B&W	-	600000000003	363030303030303030303033	Set to B&W
28	Aspect Ratio	Set to 16:9 Std.	-	400000000000	343030303030303030303030	Set to 16:9 Std.
29	Aspect Ratio	Set 16:9 Zoom	-	400000000001	343030303030303030303031	Set to 16:9 Zoom
30	Aspect Ratio	Set to 4:3 Standard	-	400000000002	343030303030303030303032	Set to 4:3 Standard
31	Aspect Ratio	Set to 4:3 Expanded	-	400000000003	343030303030303030303033	Set to 4:3 Expanded
32	Aspect Ratio	Set to 4:3 Zoom	-	400000000004	343030303030303030303034	Set to 4:3 Zoom
33	Aspect Ratio	Set to 4:3 Zoom 2	-	400000000005	343030303030303030303035	Set to 4:3 Zoom 2

Table 4.5.1 Write Data Command Summary (Continued)

No.	Item	Command	Initial Condition	Hex Character	Hex Code Set	Result
34	Info	On	0	B20000000001	423230303030303030303031	Turns Info On
35	Info	Off	0	B20000000000	423230303030303030303031	Turns Info Off
36	Direct CH 0~9	Key Code to 0	-	D00000000000	443030303030303030303030	Key code to 0
37	Direct CH -	CH-	-	D00000010000	443030303030303130303030	CH-
38	Direct CH Select	Select CH	-	D00000020000	443030303030303230303030	CH Select
39	Virtual HD	Select 1080i	0	D30000000000	443330303030303030303030	Select 1080i
40	Virtual HD	Select 540p	0	D30000000001	443330303030303030303031	Select 540p
41	Auto Movie Mode	Auto Movie Off	-	D40000000000	443430303030303030303030	Auto Movie Off
42	Auto Movie Mode	Auto Movie On (Auto)	-	D40000000000	443430303030303030303031	Auto Movie On (Auto)

INTRODUCTION

The 32HDL51M are LCD Television sets; They are constituted by the combination of two main parts, an AUDIO VIDEO CONTROL Center, and the LCD Display monitor.
Each part has a model name and a chassis name:

Part	Model Name	Chassis Name
Audio Video Control Center	AVC76L	AVC5-UB
32" LCD Display Monitor	32HDL51M	PLC1

The AVC center is a box that controls most of the user functions of the complete TV set and conditions the signal before it arrives to the monitors.

The 32" monitors contain the displaying device, which is the LCD display panel module, and the driving circuitry, which receives the signal from the AVC center and after processing, delivers the image to the display module.

This HITACHI Service Manual is intended for the qualified service personnel and it contains the necessary information for troubleshooting the Plasma television set in case of malfunction.

DIMENSIONS:

		Monitor	AVC
Height	:	1010.5	85
Width	:	1,128	430
Depth	:	623.5	240

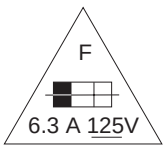
POWER RATINGS:

No.	Model Name	Indicated Value			PST(W)		Chassis
		Max Rating		Average Rating (W)	Without POD. less than 1W	With POD. less than 14W	
		(W)	(A)				
1	all AVC except below	48W	0.9A	(41W)	0.5W	14W	AVC5-UB

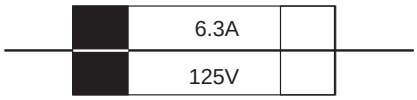
CIRCUIT PROTECTION

CAUTION: Below is an EXAMPLE only. See Replacement Parts List for details. The following symbol near the fuse indicates fast operation fuse (to be replaced). Fuse ratings appear within the symbol.

Example:



"RISK OF FIRE - REPLACE FUSE AS MARKED"



The rating of fuse F902 is 6.3A - 125V.
Replace with the same type fuse for continued protection against fire.

Specification Features
(1 of 2)

Model				AVC75	
Dimension	Size		1	430mmX85mmX240mm	
	Weight		2	4.2 kg	
A/C Input Voltage	Input A/C Voltage		3	AC108 V~132 V (with 3 Plug AC Power Cord inlet type, 1.8m length)	
	Input A/C Frequency		4	60Hz	
	Power Consumption		5	48W, SBY/POD-SBY less than 1W/14W	
Front End	Front End (main/Sub/ATSC)		6	VO-A32FT/VO-A69FT/V2-A35DG (NTSC/NTSC/ATSC(8VSB),64QAM,256QAM	
	Available Channel		7	2~13	VHF
			8	14 ~ 39	UHF
			9	A-5~A-1,A~W,W+1~W+94	CATV
Input Signal	Video Signal		10	N T S C	
	Component Signal		11	480 i/p, 1080 i, 720p	
	PC Signal		12	VGA ~ UXGA (1H:24KHz-109KHz,fV:50Hz-85Hz)	
	HDMI Signal		13	480i, 480p, 720p, 1080i(EIA-861B)	
Picture	Y/C Seperation		14	3D Y/C (ON fix)	
	Line Correction		15	No	
	I-P Conversion		16	Motion Adaptive & Multi Angle Interpolation	FC4
	Picture Mode		17	Day,Night	
	Display Mode		18	42:1024i,55:768p	Video Signal
			19	42:1024i,55:768p	Component Signal
			20	42:1024i,55:768p	Pinp Mode
			21	42:1024i,55:768p	PC Signal
Sound Enhancement			22	TruBAss (High,Medium,Low,Off) Matrix Surround (On/Off)	
Adjustment	Settings for Video Signal		23	Picture,Contrast,Brightness,Color,Tint, Sharpness,W/B Temp,Black Enhancement, Contrast Mode,Color Management/Decoding, Auto Color,Noise Reduction,Auto Movie Mode, Black Side Panel	
	Settings for PC Signal		24	Contrast,Brightness,W/B Temp, Enhancer,Input Level,Black Side Panel	
	Settings for PC Raster		25	Hor/Vert Raster Position,Horizontal Clock, Clock Phase	
	Settings for Sound		26	Vol,Balance,Bass,Treble,Source,Internal Speakers, Auto Noise Cancel,Perfect Volume,Mute,Soft Mute	
General Function	PinP Mode	Split	27	With(All video signal combinations, except PC signal)	Except Photo Input
		Strobe	28	With(4Pix:only ANT A/B,Video,480i)	Except Photo Input
		Surf	29	With(SURF12:only ANT A/B)	Except Photo Input
		POP	30	With(Main: ANT A/B,Video,480i,Sub:ANT A/B, Video,480i,1080i)	Except Photo Input
		PIP	31	With(Main:1080i Sub: ANT A/B,Video,480i,1080i)	Except Photo Input
		PC-Window	32	With(Main:RGB Sub: All video signal,except PC/DM)	Except Photo Input
	Wide Mode		33	6Mode	
	Aspect Selection	Video	34	4:3 Standard/16:9 Standard/ 4:3 Expanded/Zoom 1/Zoom 2/16:9 Zoom	
		PC	35	Full/Normal/Real (Real 42:VGA,55:VGA/SVGA/XGA/WXGA)	
	Film Theater		36	With(Auto Movie Mode:On/Off)	
	Color Temperature		37	4Mode (High/Medium/Standard/Black & White)	
	Input Signal Selection		38	RGB,VIDEO1/2/3/4/5, ANT A/B,IEEE1394 Photo Input	

TABLE OF CONTENTS

Specification Features
(2 of 2)

Model			AVC75	
General Function	Gamma Correction	39	Only for Service Menu	
	Picture Enhancer	40	With (only RGB)	
	Input Signal Identification	41	Yes	
	Audio Special Mode	42	No	
	Power Save Mode	43	With (RGB In)	LED Normal:Green
		44	With (On/Off) (Video In)	Power Save:Orange Stand by:Red
	Burning Protection	45	With (Raster Shift:3 option,All White Pattern)	
	OSD Language (VIDEO/PC)	46	ENGLISH,FRANCAIS,ESPANOL	
	Power Swivel	47	With	
R/C Handset		48	CLU-3841WL / CLU-122S	PANASONIC/UEI
In/Out Terminal	PC Input (RGB)	49	1 Input:Mini Dsub-15PX1	
	Composite Video Input (VIDEO1~5)	50	5 Input:RCA pin×5 (1 Input Front Panel)	
	S-In(S2 Terminal) (Video/S arecommon selector, priority is S-In).	51	3 Input:Mini Din-4P×3 (1 S-In on Front Panel)	
	Component Signal Input (VIDEO1,VIDEO2)	52	2 Input:RCA pin×6(Y of VIDEO1/2 is common input for Composite-In)	
	Digital Input(HDMI+HDCP)	53	2 Input:HDMI(18P)X1 (Selected by component Video1/2,Digital input priority)	
	Audio In (L/R) (Lch:mono)	54	6 Input; R C A pin×12 (RGB:1 Input,Video:5 Input)	
	CATV In	55	1 Input (VIDEO2 LINK)	Auto Link Function
	Video Control Terminal (BS)	56	No	
	U/V Ant Input	57	ANT-A IN,ANT-B IN	
	BS-I/F Input	58	No	
	Video Monitor Out Terminal	59	1 Output:RCA pin×1	
	Audio Output Terminal	60	1 Output L/R:RCA pin×2(Common input for No.59)	
	Audio Monitor Out Terminal	61	1 Output L/R:RCA pin×2	
	IR-OUTPUT	62	2 Terminal	
	Headphone Terminal	63	1 Terminal (only for AVC)	
	PDP Interface Terminal	64	DVI-D(26p)+Mini 8PIN-DIN	
	IEEE 1394 Input	65	2 (4pin connector)	
	RS-232C Terminal	66	1 (Female type)	
	Photo Input	67	1 (On front panel)	
	Audio Optical Output	68	1 (Square type)	
Front Key	Main Power Switch	69	No	
	Power On/off Switch	70	With (link to Monitor)	
	IR Receiving Unit	71	With (link to Monitor)	
	Power Indicator LED	72	With	
	Menu Control Key	73	With (Channel U/D, Vol U/D, A/V Input Select,Menu Select)	
Option	10m DVI-I/F cable(AVC-PDP)	74	With	
	PDP TV Stand	75	With	
	Wall Mount Unit	76	With	

CIRCUIT SPECIFICATION

The conditions are as follows unless specially mentioned.

Conditions

(1)	Power Voltage:	Rated power voltage (±1V), 60Hz.
(2)	Input Video Signal:	Color Bar (Supplied by AVC)
(3)	Input Audio Signal:	Standard Burst Audio Signal (Supplied by AVC)
(4)	Setting:	Set the power consumption to be the maximum by User Control. As for Audio output, set the waveform distortion to be 10%.
(5)	Temp/Humidity:	Normal
(6)	Pre heat-run:	Over 30min.
(7)	Others:	Set for shipment

Power Circuit Specification

Details are specified in the 'Power Unit Product Specification (P# HA01521).

Input Specification

Item		Specification	Remarks
Input Voltage	Rated Range	AC100V～240V	AC120V for the set
	Guaranteed Range	AC90V～264V	AC108V～132V for the set
Input Frequency	Rated Range	50/60Hz	
	Guaranteed Range	47～63Hz	
Input Electrical Power	ON mode	W or less	
	Stand-by mode	1W or less	
Efficiency		85% min	When each output is at its maximum of rated value.
Power Factor		90% min	Except Stand-by mode
Incoming Current		50Apeak or less	
Guaranty for sudden power outage		20msec min	No malfunction or damage even at 20msec or more.

Output Specification

Output	Voltage (V)	Range (V)	Rating Current (Min～Max (A))	Fluctuation (V)	Ripple (mVp-p)
+5V STB	+5V	4.8～5.2	0.4A(0.02～0.54)	Setting Voltage±4%	200
+5V Vcc	+5V	4.8～5.2	0.8A(0～3.0)	Setting Voltage±4%	200
+12V PANEL	+12V	11.5～12.5	0.6A(0～1.2)	Setting Voltage±4%	200
+10V MOTOR	+10V	9.5～10.5	0.3A(0～1.3)	Setting Voltage±5%	500
+12.5V AUDIO	+12.5V	12.3～12.7	2.6A(0.1～3.5)	+12.5±0.2	10 at 20～20khz 500 at other
+24V INVERTER	+24V	22.8～25.2	5.1A(1.0～6.2)	Setting Voltage±5%	500

MPU Control Operation Specification

	Item \ Model		Specification			Condition etc.
1	Communication with AVC	LCD Microcomputer Version Response	To answer the version of PDP Microcomputer (In the range of V0.01～V9.99)			By communication of AVC
		POWER Control	POWER	LED Display		
			ON	Green light		
			Power Saved	Orange light		
			Stand-By	Red Light		
		Mute Function	Video/Audio Mute To be able to turn ON/OFF			
		Audio Control Function	No	Control Item	Display	
			1	Volume	0 ～ 63	
			2	Treble	0%～ 100%	
			3	Bass	0%～ 100%	
			4	Balance	L ～ R	
			5	DynamicBass	HIGH/MED/LOW/OFF	
			6	Matrix Surround	ON/OFF	
		Contrast	No	Control Item	Display	
			1	Contrast	0%～ 100%	
		VIDEO Setting	(1) Color Temperature Change-over (HIGH,MED,LOW,B/W) (2) Input Terminal Mode (RGB/VIDEO)			
		Color Temperature Adjustment (Only while the AVC Service Mode is set)	Color Temp.	RGB	Display	
			HIGH	R	00～FF	
				G		
				B		
			MED	R	00～FF	
				G		
				B		
			LOW	R	00～FF	
				G		
				B		
			B/W	R	00～FF	
				G		
				B		
		Others	(1) Peak Brightness Mode Change-over (High Luminance/ Normal) (2) Burn-in Mode Change-over ① Burn-in ② Power Save enable ③ White Raster Burn-in (3) γ Change-over(Only Service Mode) (1.0 / 2.2 / 2.8) (4) Black Level/Standard Amplitude Adjustment (R/G/B)			

(Continued from previous page)

<table>
<tr><th></th><th>Model
Item</th><th>Specification</th><th>Condition etc.</th></tr>
<tr><td>2</td><td>Detection of AVC Connection Condition</td><td>Ensure the following:
(1) If AVC and LCD is disconnected, or
(2) AC supply for AVC is off,
LCD Front LED will be: Orange (Blinking)
LCD Power state will be: Stand-By Mode</td><td></td></tr>
<tr><td>3</td><td>LCD Individual Burn-in Function</td><td>It must operate by the LCD independent.
It must give a change indication of whole surface monochrome.</td><td>The operation starts by pressing Sub power SW for 5 seconds.
Turn off the Sub SW to cancel.</td></tr>
<tr><td>4</td><td>Measuring Accumulated ON time</td><td>To answer the accumulated time of ON mode by the request of AVC.</td><td></td></tr>
<tr><td>5</td><td>EEPROM Automatic Initialization</td><td>If the address of EEPROM doesn't have the designated data below, ensure automatic initialization is executed, and the data is written.
<table>
<tr><th>EEPROM Address</th><th>Designated Data</th></tr>
<tr><td>0 0 H</td><td>5 A H</td></tr>
<tr><td>0 1 H</td><td>A 5 H</td></tr>
</table></td><td></td></tr>
<tr><td>6</td><td>Key Operation</td><td>Sub Power SW: To be able to change-over ON/Stand-By mode.</td><td></td></tr>
<tr><td>7</td><td>SII169 Configuration DATA Setting</td><td>When the power is ON, store the data at the SII169 Configuration EEPROM
(I002 BR24L08FJ) for data storage.
(1) When the power is turned ON for the first time, conduct the writing.
(2) From the next time, check the data every time the power is turned ON, and if it isn't the designated data, overwrite the correct one.</td><td></td></tr>
<tr><td>8</td><td>The color Temp Compensation against
Phosphor decay</td><td>The R, G, B gains should be corrected according to the working time of PDP module.
Each correction (Off, Low, Mid and High)
Should be selectable on service mode.</td><td>Only available on colour temperature 'Cool' condition.</td></tr>
</table>

Final Set Adjustment

1. Video color temperature adjustment. (HIGH)

-Preparation-1

(1) Set the output of signal generator to white raster. (RATIO:100%)

(2) Component signal

Video level: 0.714Vp-p
SYNC: 0.286Vp-p
Set-up level: 0V

(3) Apply white raster signal into COMPONENT input terminal of AVC jig.

(4) Set user control to Day mode. (Picture mode)

(5) Confirm that the mode is set as 'Factory setting mode'

(6) Aspect: ① Video: EXPANDED
② PC: FULL

-Preparation-2

(1) Set service adjustment menu to『DEVICE ADJUST MODE-LCD』.

(2) Set WBC to 『0』.

-Adjustment

(1) Perform the following adjustment with the remote control.

(2) Set the CRT color analyzer (CA-100) at the center of the panel.

(3) Set color temperature to『HIGH.』

(4) Ensure that Adjustment of R/G/B DRIVE (HIGH) are all set as FF.

(5) After receiving White raster signal, step down the two (or one) among Adjustment of R/G/B DRIVE (HIGH) and adjust the value shown below.

Specification
Video Color temperature (HIGH)
x = 0.268 ± 0.005
y = 0.283 ± 0.005

At least one of the data should be FF.

-Remarks

(1) Color temperature should be adjusted under the condition in which the screen is the brightest, thus the initial value for adjustment is set its maximum.

(2) Adjustment is made by reducing brightness only.
Reduce a bright color for adjustment.

(3) Video color temperature & Adjustment No are the same, but addresses in the memory are different, thus there's no problem.

Video color temperature adjustment (MEDIUM)

-Preparation

Same as “Video color temperature adjustment:(HIGH)”

-Adjustment

(1) Perform the following adjustment with the remote control.
(2) Set the CRT color analyzer (CA-100) at the center of the panel.
(3) Set color temperature to 『MEDIUM.』
(4) Ensure that Adjustment of R/G/B DRIVE (MEDIUM) are all set as FF.
(5) After receiving White raster signal, step down the two (or one) among Adjustment of R/G/B DRIVE (MEDIUM) and adjust the value shown below.

Specification
Video Color temperature (MED)
x = 0.285 ± 0.005
y = 0.293 ± 0.005

At least one of the data should be FF.

-Remarks

(1) Same as “Video color temperature adjustment:(HIGH)”

Video color temp adj. (STD)

-Preparation

Same as “Video color temperature adjustment:(HIGH)”

-Adjustment

(1) Perform the following adjustment with the remote control.
(2) Set the CRT color analyzer (CA-100) at the center of the panel.
(3) Set color temperature to 『MEDIUM.』
(4) Ensure that Adjustment of R/G/B DRIVE (STD) are all set as FF.
(5) After receiving White raster signal, step down the two (or one) among Adjustment of R/G/B DRIVE (STD) and adjust the value shown below.

Specification
Video Color temperature (STD)
x = 0.314 ± 0.005
y = 0.327 ± 0.005

At least one of the data should be FF.

-Remarks

(1) Same as “Video color temperature adjustment:(HIGH)”

Video color temperature adjustment (B/W)

-Preparation

Same as “Video color temperature adjustment:(HIGH)”

-Adjustment

(1) Perform the following adjustment with the remote control.
(2) Set the CRT color analyzer (CA-100) at the center of the panel.
(3) Ensure that Adjustment of R/G/B DRIVE (B/W) are all set as FF.
(4) After receiving White raster signal, step down the two (or one) among Adjustment of R/G/B DRIVE (B/W) and adjust the value shown below.

Specification
PC Color temperature (B/W)
x = 0.335 ± 0.005
y = 0.343 ± 0.005

At least one of the data should be FF.

-Remarks

(1) Same as “Video color temperature adjustment:(HIGH)”

PC color temperature adjustment (HIGH)

-Preparation

(1) This adjustment should be done after video color temperature adjustment.
(2) Confirm that it's set as factory adjustment mode.
(3) Input white raster.(RATIO:100%)into RGB terminals at VGA(75) 0.7V (No set-up).
(4) Set AVC to shipment condition.
(5) Confirm that the screen size is 'FULL'.

-Adjustment

(1) Perform the following adjustment with the remote control.
(2) Set color temperature to 『HIGH.』
(3) Make sure that Adjustment of R/G/B DRIVE (HIGH) data are all set at FF.
(4) Then by the remote control, use cursor left to decrease and cursor right to Increase the value data following x and y value show below :

Specification PC Color temperature (HIGH)
x = 0.268 ± 0.005
y = 0.283 ± 0.005

At least one of the data should be FF

Write Adjustment of x and y data value of video color temperature to the following :

Video Color Temperature		**PC Color Temperature**
R/G/B DRIVE(MEDIUM) Data	→	R/G/B DRIVE(MEDIUM) Data
R/G/B DRIVE(STD) Data	→	R/G/B DRIVE(STD) Data
R/G/B DRIVE(B/W) Data	→	R/G/B DRIVE(B/W) Data

-Remarks

(1) Color temperature should be adjusted under the condition in which the screen is the brightest, thus the initial value for adjustment is set its maximum.
(2) Adjustment is made by reducing brightness only.
Reduce a bright color for adjustment.
(3) Video color temperature & Adjustment No are the same, but addresses in the memory are different, thus there's no problem.

Color temperature correction setting

This setting should be done after color temperature adjustment.

(1) Set service adjustment menu to 『DEVICE ADJUST MODE-LCD』.
(2) Reset WBC to 『2』.

Shipment Specification

Setting for Shipment

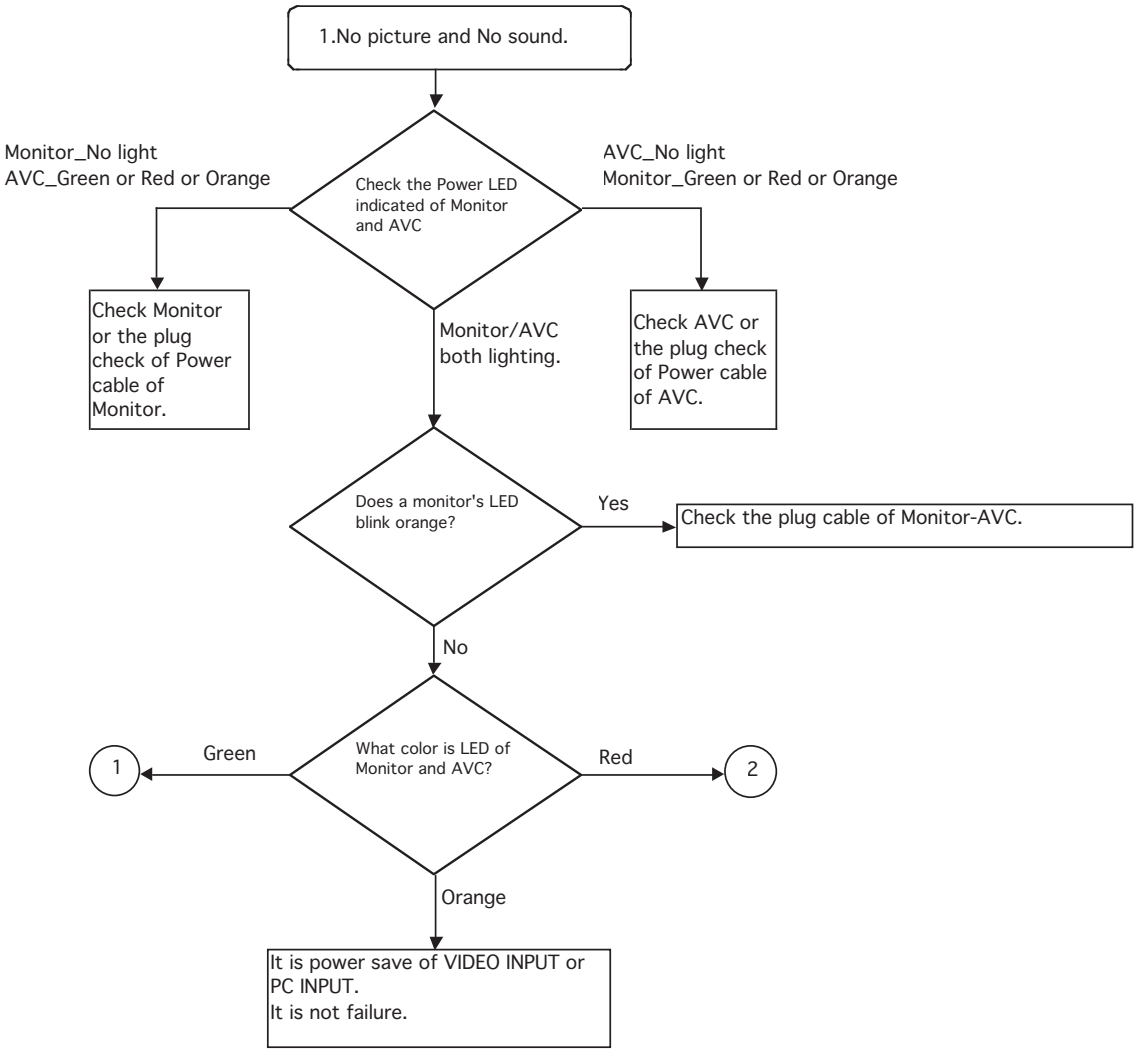
Setting Item	Shipment Setting
Main Power Switch	OFF

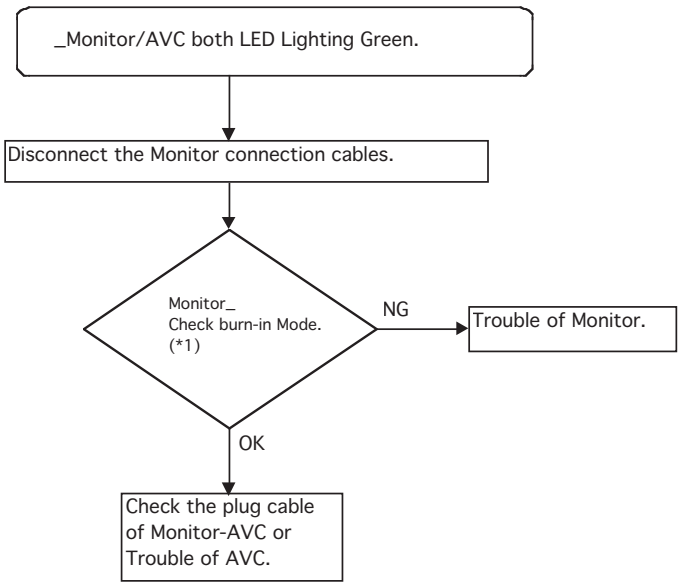
Shipment Setting for each Models and Performance Specification

	Item \ Model		32HDL51M	
1	Color Temp Setting ①when inputting TV(VIDEO) ②γ offset 2.2 ③White raster	HIGH (COOL)	12000K x=0.268±0.01 y=0.283±0.01	
		MIDIUM (NORM)	9300K x=0.285±0.01 y=0.293±0.01	
		STD (WARM)	6500K x=0.314±0.01 y=0.327±0.01	
		B/W	5400K x=0.335±0.01 y=0.343±0.01	
2	Color Temp Setting ①when inputting(RGB) ②γ offset 2.2 ③6.25% White window	HIGH (COOL)	12000K x=0.268±0.01 y=0.283±0.01	
		MIDIUM (NORM)	9300K x=0.285±0.01 y=0.293±0.01	
		STD (WARM)	6500K x=0.314±0.01 y=0.327±0.01	
		B/W	5400K x=0.335±0.01 y=0.343±0.01	
3	MAX Brightness (Max Bright Contrast)	when inputting TV(VIDEO), selecting 'Super' (1% window)	370 cd/㎡ or more (Color temp:High) when 100% amplitude signal is input	
		when inputting PC(RGB) (1% window)	370 cd/㎡ or more (Color temp:Norm)	
4	Contrast Ratio at 85° CR=Luminance at WHITE/BLACK		Min. 10	

TABLE OF CONTENTS

TROUBLE SHOOTING FLOWCHARTS.


1.No picture and No sound.
Check the Power LED indicated of Monitor and AVC
Monitor_No light
AVC_Green or Red or Orange
AVC_No light
Monitor_Green or Red or Orange
Check Monitor or the plug check of Power cable of Monitor.
Monitor/AVC both lighting.
Check AVC or the plug check of Power cable of AVC.
Does a monitor's LED blink orange?
Yes
Check the plug cable of Monitor-AVC.
No
What color is LED of Monitor and AVC?
Green
1
Red
2
Orange
It is power save of VIDEO INPUT or PC INPUT.
It is not failure.

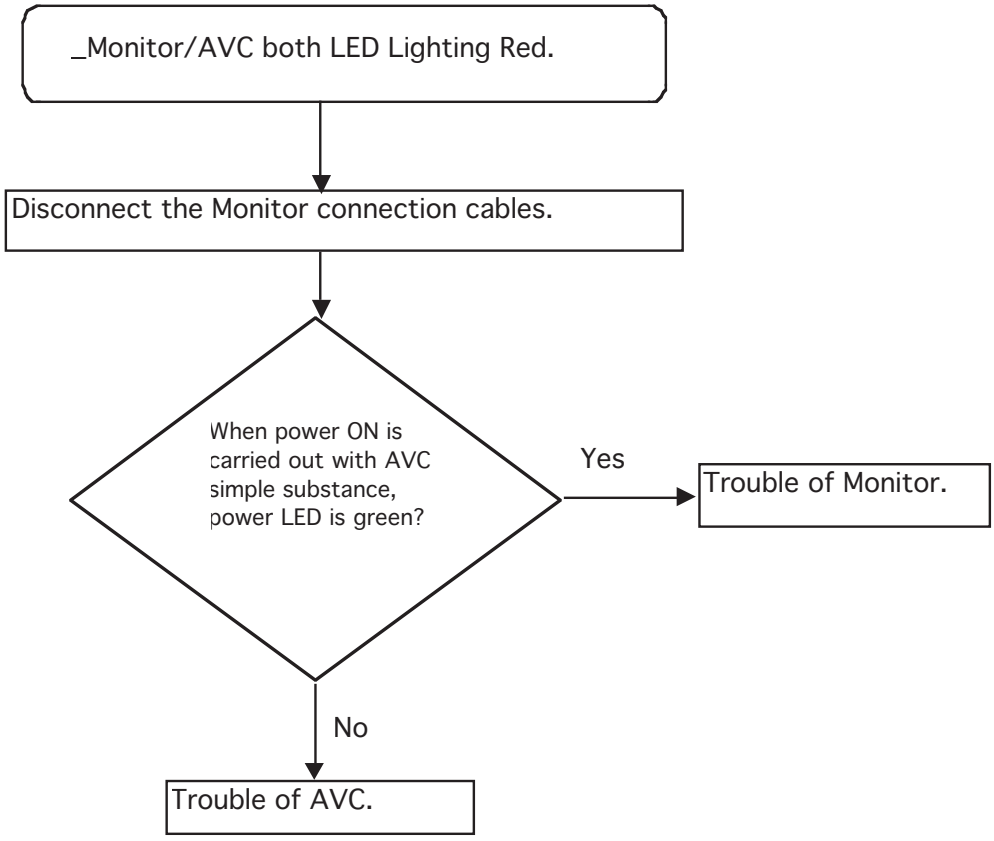


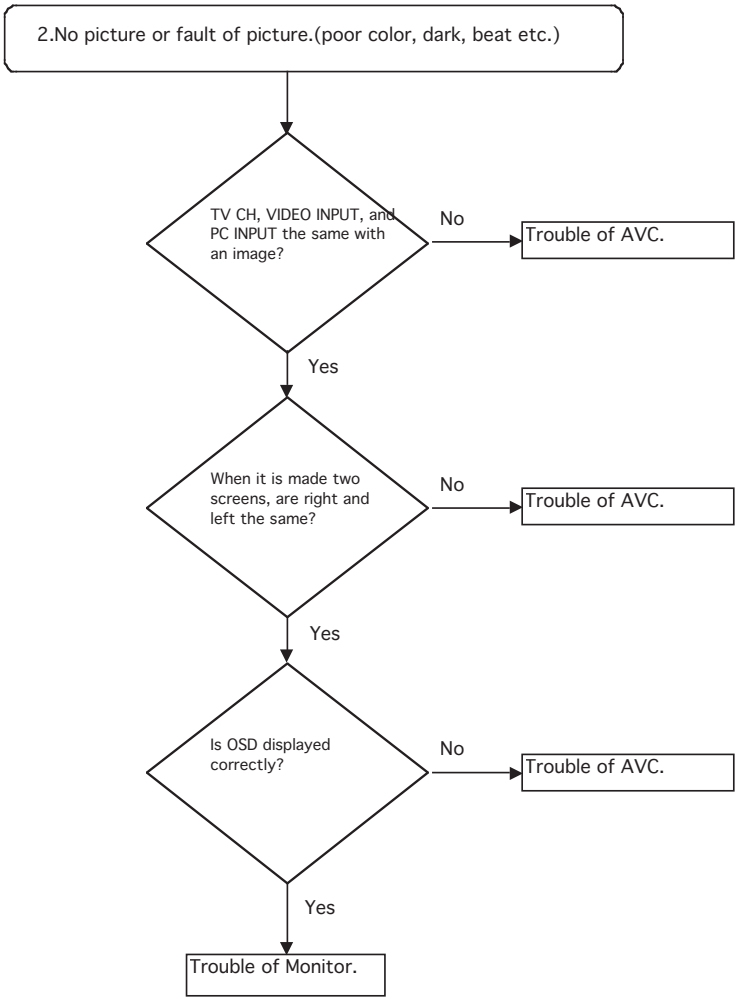
Note(*1)
Burn-in Mode.

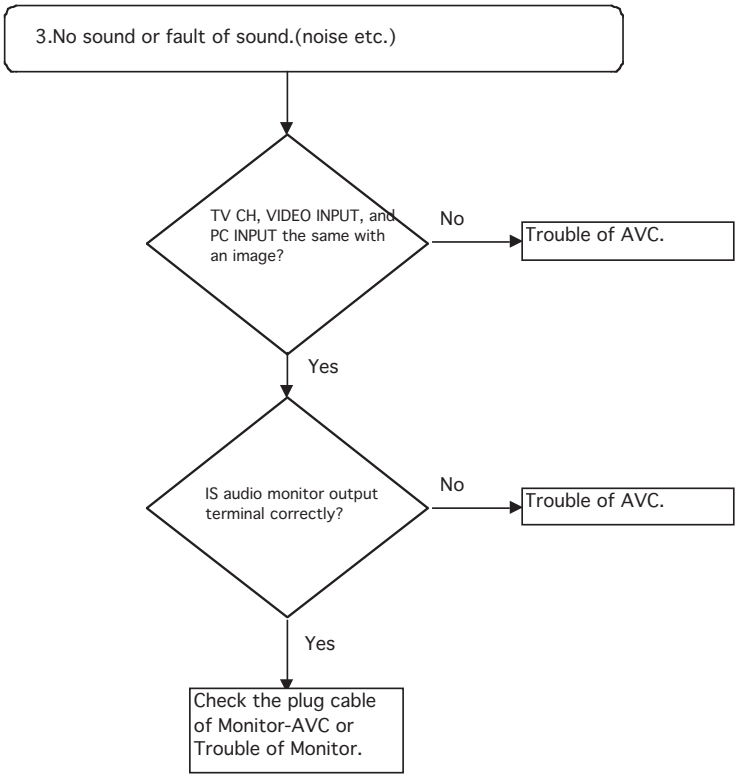
There is burn-in mode as method of displaying an image by the monitor part independent.
If it goes into burn-in mode test signals such as white raster and monochrome, will be expressed as a fixed interval.

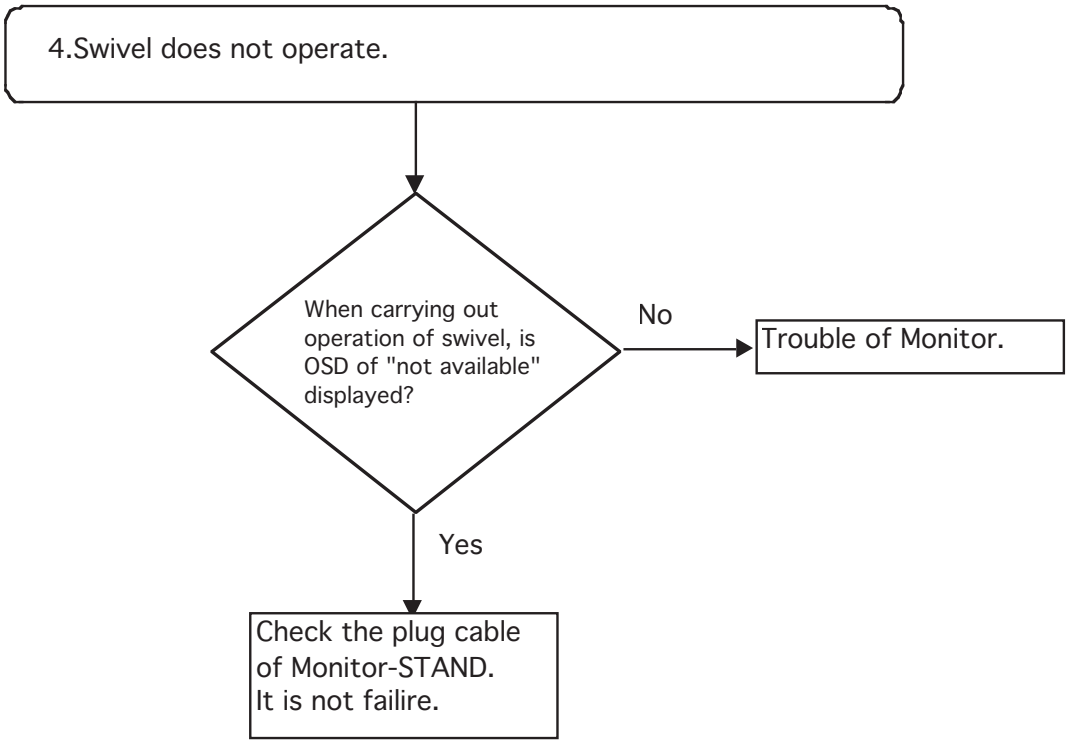
In order to go into burn-in mode, disconnect the monitor connection cable, then the main power button is pushed, and pushing the power button on back of a monitor is continued 5 seconds or more.

In order to cancel burn-in mode, push again the power button on back of a monitor.

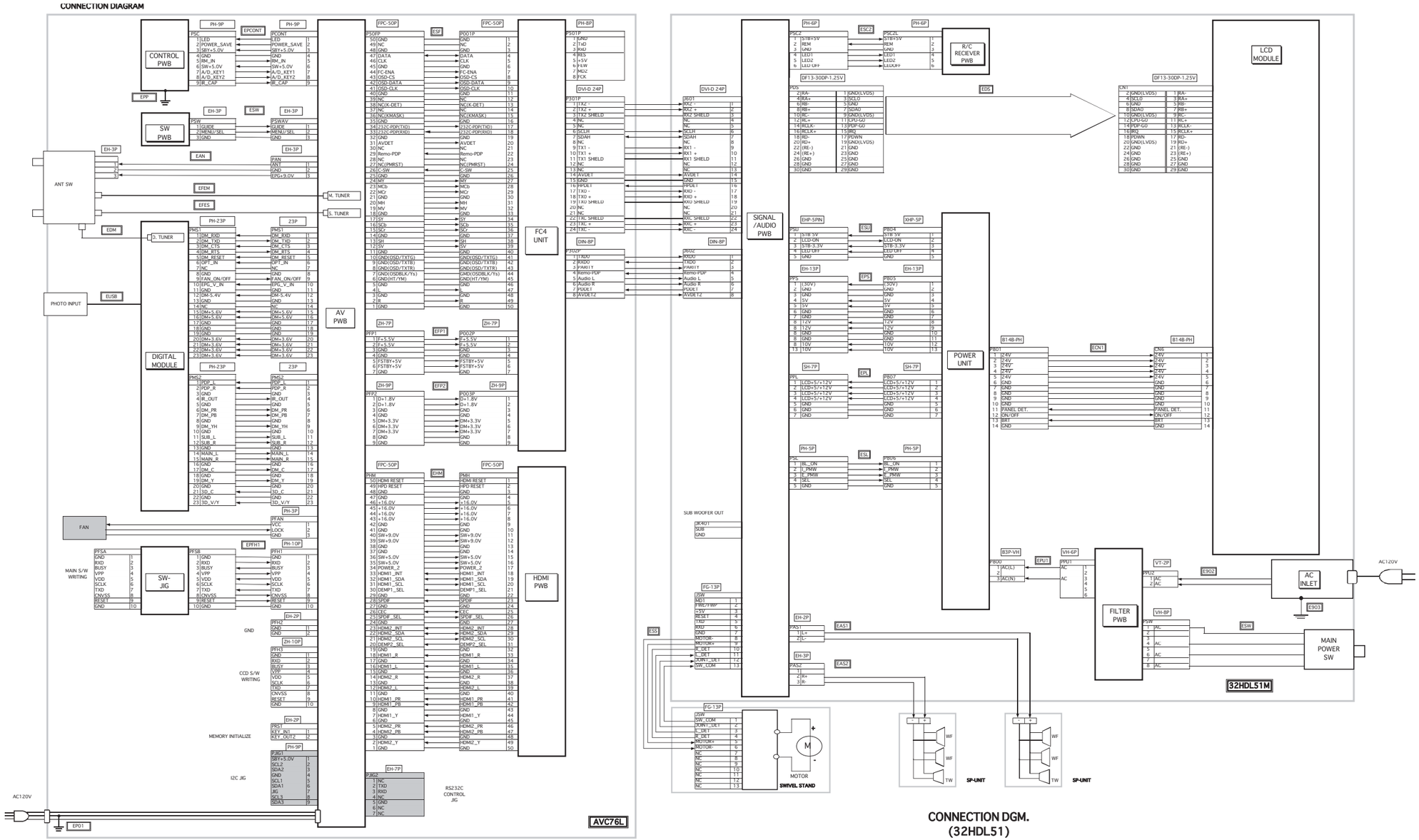

_Monitor/AVC both LED Lighting Red.
Disconnect the Monitor connection cables.
When power ON is carried out with AVC simple substance, power LED is green?
Yes
Trouble of Monitor.
No
Trouble of AVC.


2.No picture or fault of picture.(poor color, dark, beat etc.)
TV CH, VIDEO INPUT, and PC INPUT the same with an image?
No
Trouble of AVC.
Yes
When it is made two screens, are right and left the same?
No
Trouble of AVC.
Yes
Is OSD displayed correctly?
No
Trouble of AVC.
Yes
Trouble of Monitor.


3.No sound or fault of sound.(noise etc.)
TV CH, VIDEO INPUT, and PC INPUT the same with an image?
No
Trouble of AVC.
Yes
IS audio monitor output terminal correctly?
No
Trouble of AVC.
Yes
Check the plug cable of Monitor-AVC or Trouble of Monitor.


4.Swivel does not operate.
When carrying out operation of swivel, is OSD of "not available" displayed?
No
Trouble of Monitor.
Yes
Check the plug cable of Monitor-STAND. It is not failire.

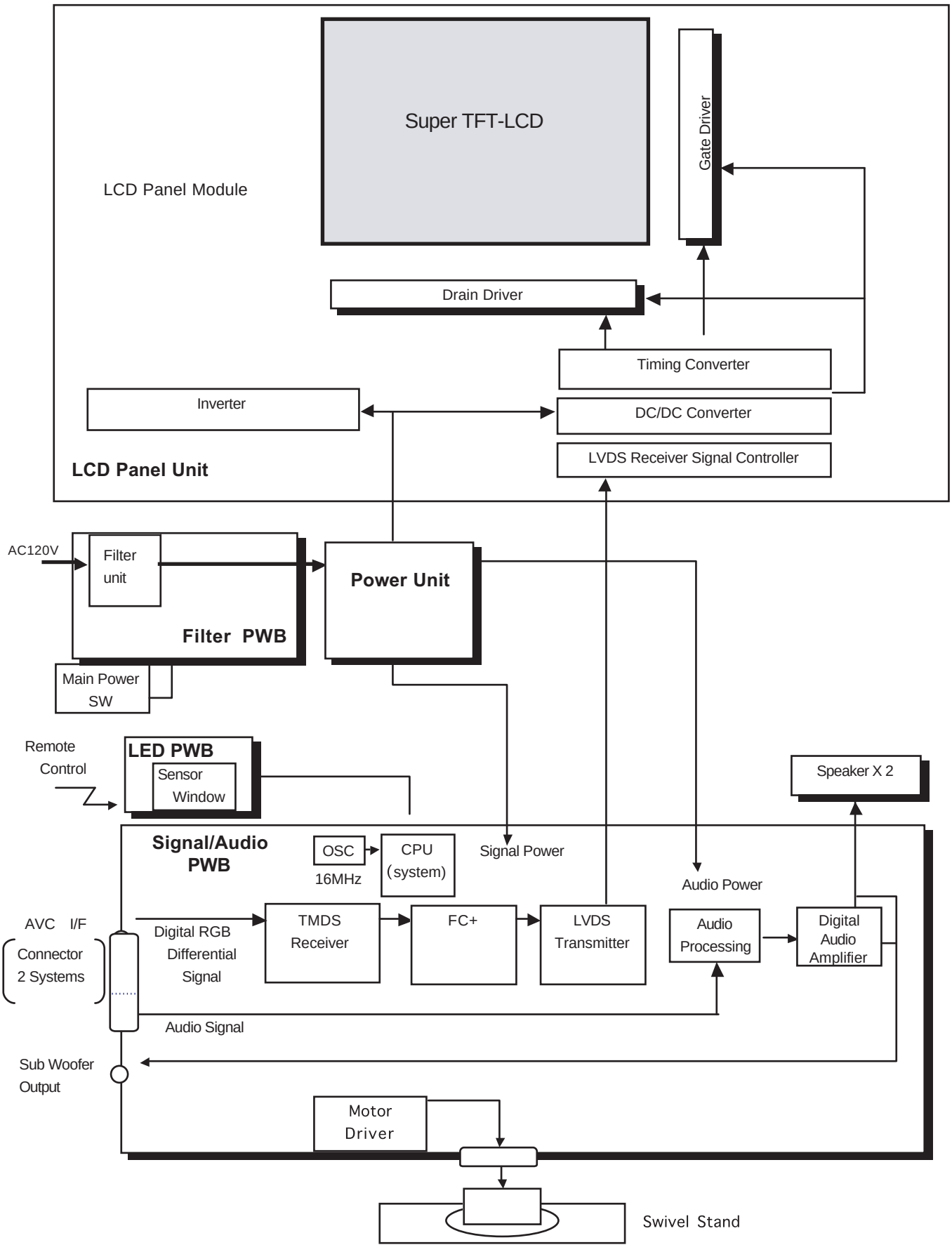
CONNECTION DIAGRAM



CONNECTION DGM.
(32HDL51)

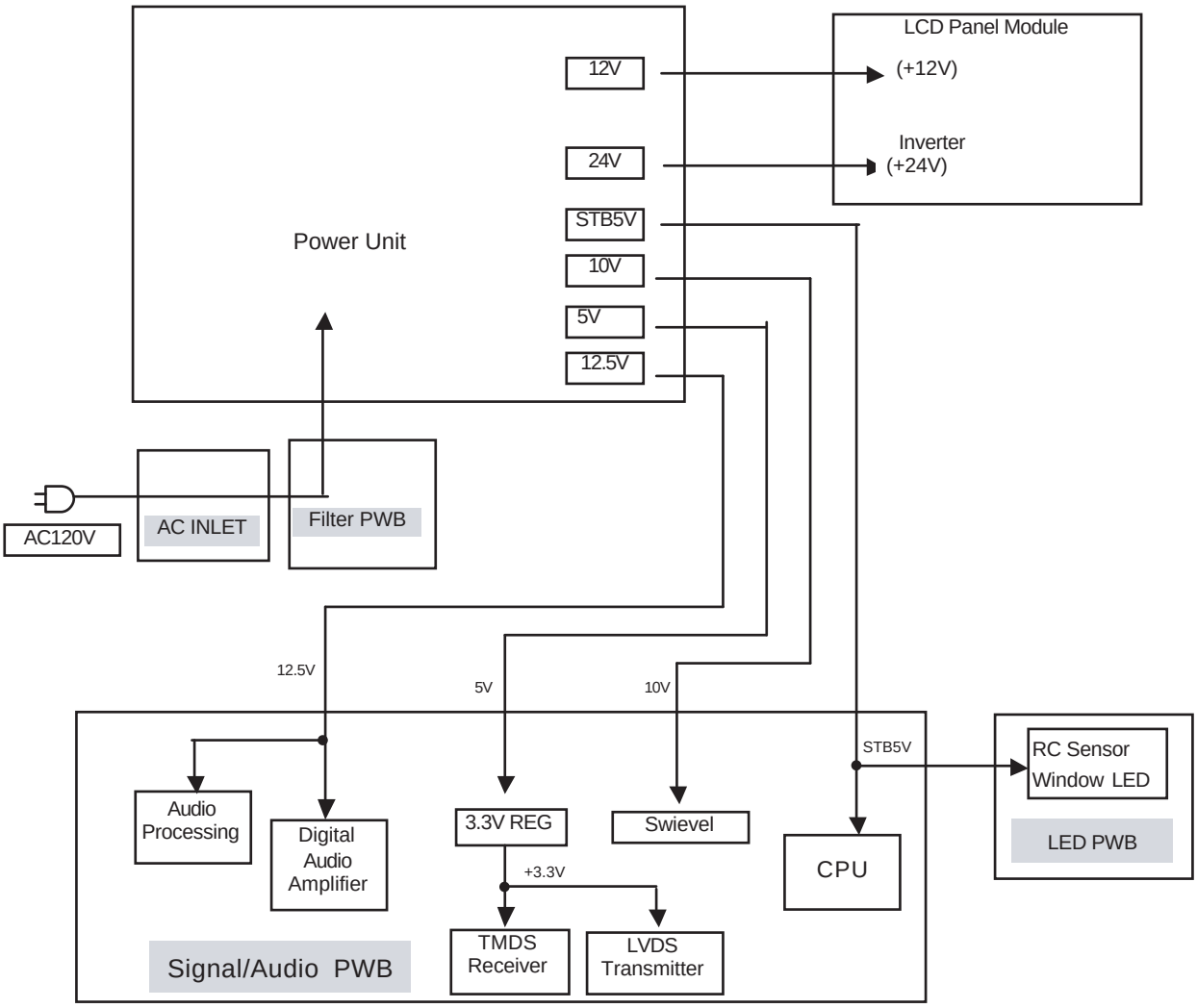
Block Diagram

Circuit Block Diagram



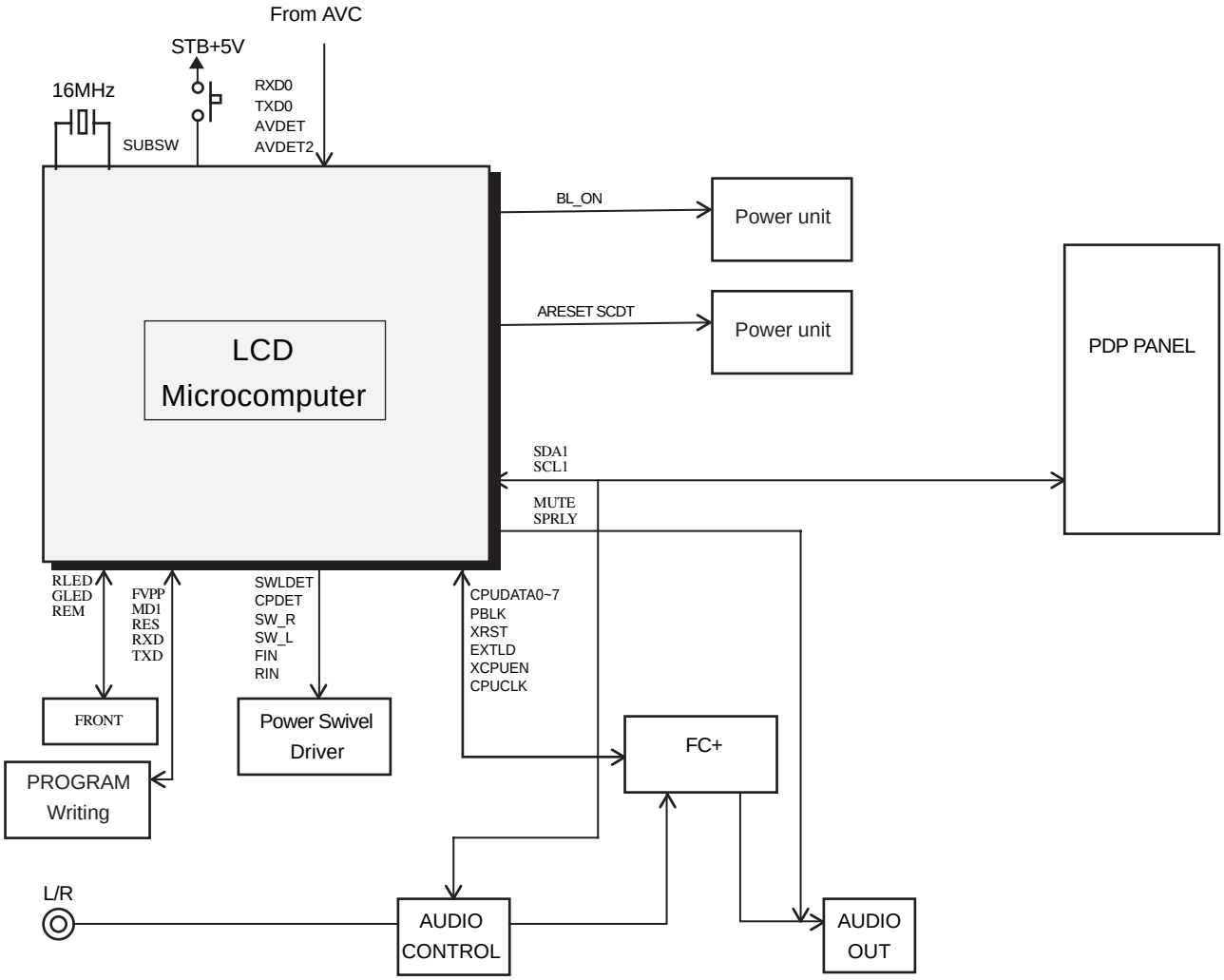
BACK TO ADJUSTMENTS

Power System Block Diagram



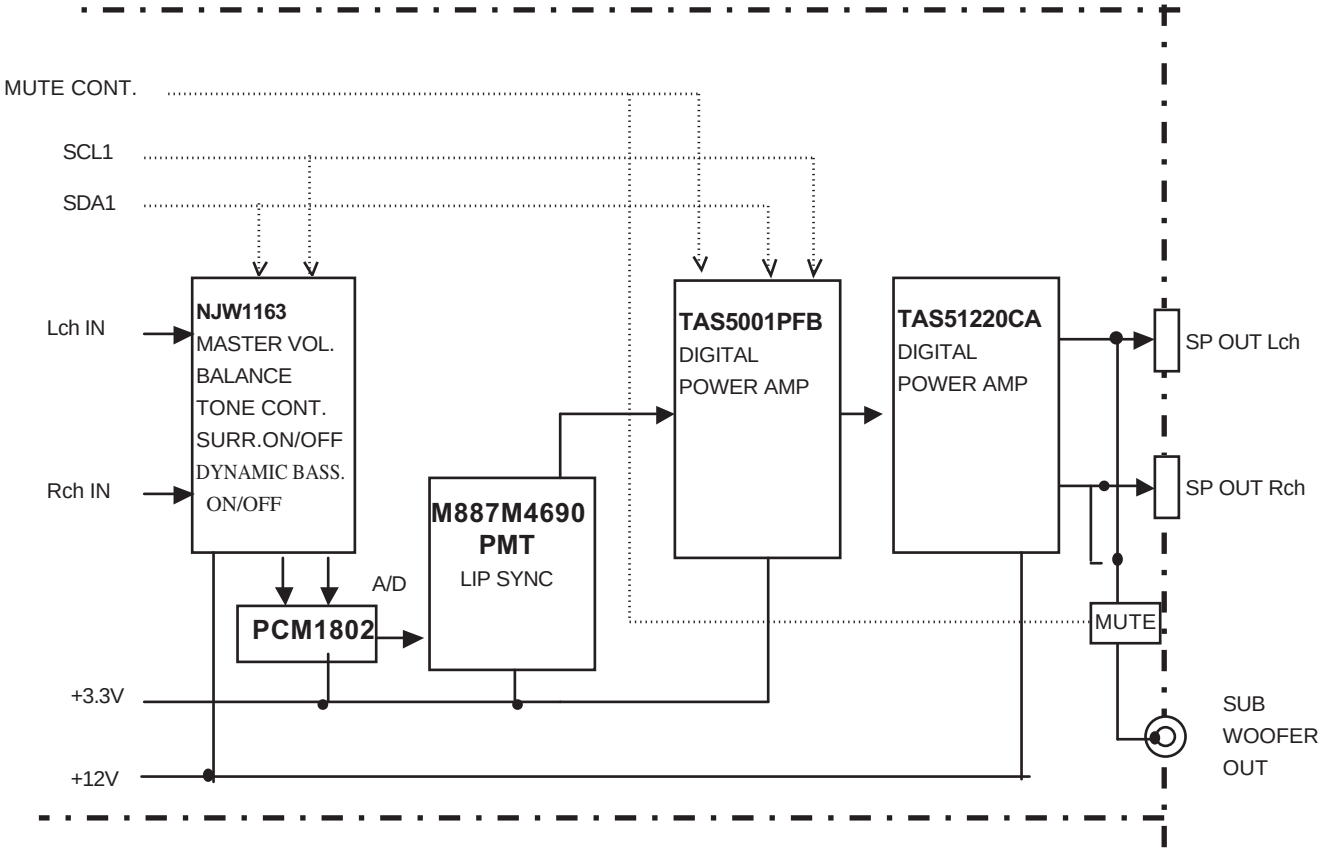
BACK TO ADJUSTMENTS

MPU Control Block Diagram



BACK TO ADJUSTMENTS

Audio Circuit Block Diagram



BACK TO ADJUSTMENTS

DC VOLTAGES AT CONNECTORS.

(MONITOR)

Symbol	Pin No.	V(DC)
PPL	1	5v to 12v
	2	5v to 12v
	3	5v to 12v
	4	5v to 12v
	5	GND
	6	GND
	7	GND

Symbol	Pin No.	V(DC)
PSC2	1	5v
	2	_
	3	GND
	4	_
	5	_
	6	_

Symbol	Pin No.	V(DC)
PPS	1	30v
	2	GND
	3	GND
	4	5v
	5	5v
	6	GND
	7	GND
	8	12v
	9	12v
	10	GND
	11	GND
	12	11v
	13	11v

Symbol	Pin No.	V(DC)
PSU	1	5v
	2	3.3v
	3	_
	4	_
	5	GND

Symbol	Pin No.	V(DC)
PSC	1	_
	2	_
	3	5.0v
	4	0v
	5	_
	6	5.0v
	7	_
	8	_
	9	_

Symbol	Pin No.	V(DC)
PCONT	1	_
	2	_
	3	5.0v
	4	0v
	5	_
	6	5.0v
	7	_
	8	_
	9	_

Symbol	Pin No.	V(DC)
PJIC1	1	5.0v
	2	_
	3	_
	4	_
	5	_
	6	_
	7	_
	8	_
	9	_

Symbol	Pin No.	V(DC)
PFP2	1	1.8v
	2	1.8v
	3	0v
	4	0v
	5	3.3v
	6	3.3v
	7	3.3v
	8	0v
	9	0v

Symbol	Pin No.	V(DC)
JSW	1	_
	2	_
	3	5v
	4	_
	5	_
	6	_
	7	_
	8	_
	9	_
	10	_
	11	_
	12	_
	13	_

Symbol	Pin No.	V(DC)
PMS1	1	24v
	2	24v
	3	24v
	4	24v
	5	24v
	6	0v
	7	0v
	8	0v
	9	0v
	10	0v
	11	_
	12	_
	13	_
	14	0v

Symbol	Pin No.	V(DC)	Pin No.	V(DC)	Pin No.	V(DC)
PMH	1	_	21	_	41	_
	2	_	22	0v	42	_
	3	0v	23	_	43	0v
	4	0v	24	0v	44	_
	5	16.0v	25	_	45	0v
	6	16.0v	26	_	46	_
	7	16.0v	27	0v	47	_
	8	16.0v	28	_	48	0v
	9	0v	29	_	49	_
	10	0V	30	_	50	0v
	11	9.0v	31	_		
	12	9.0v	32	0v		
	13	0v	33	_		
	14	0v	34	0v		
	15	5.0v	35	_		
	16	5.0v	36	0v		
	17	_	37	_		
	18	_	38	0v		
	19	_	39	_		
	20	_	40	0v		

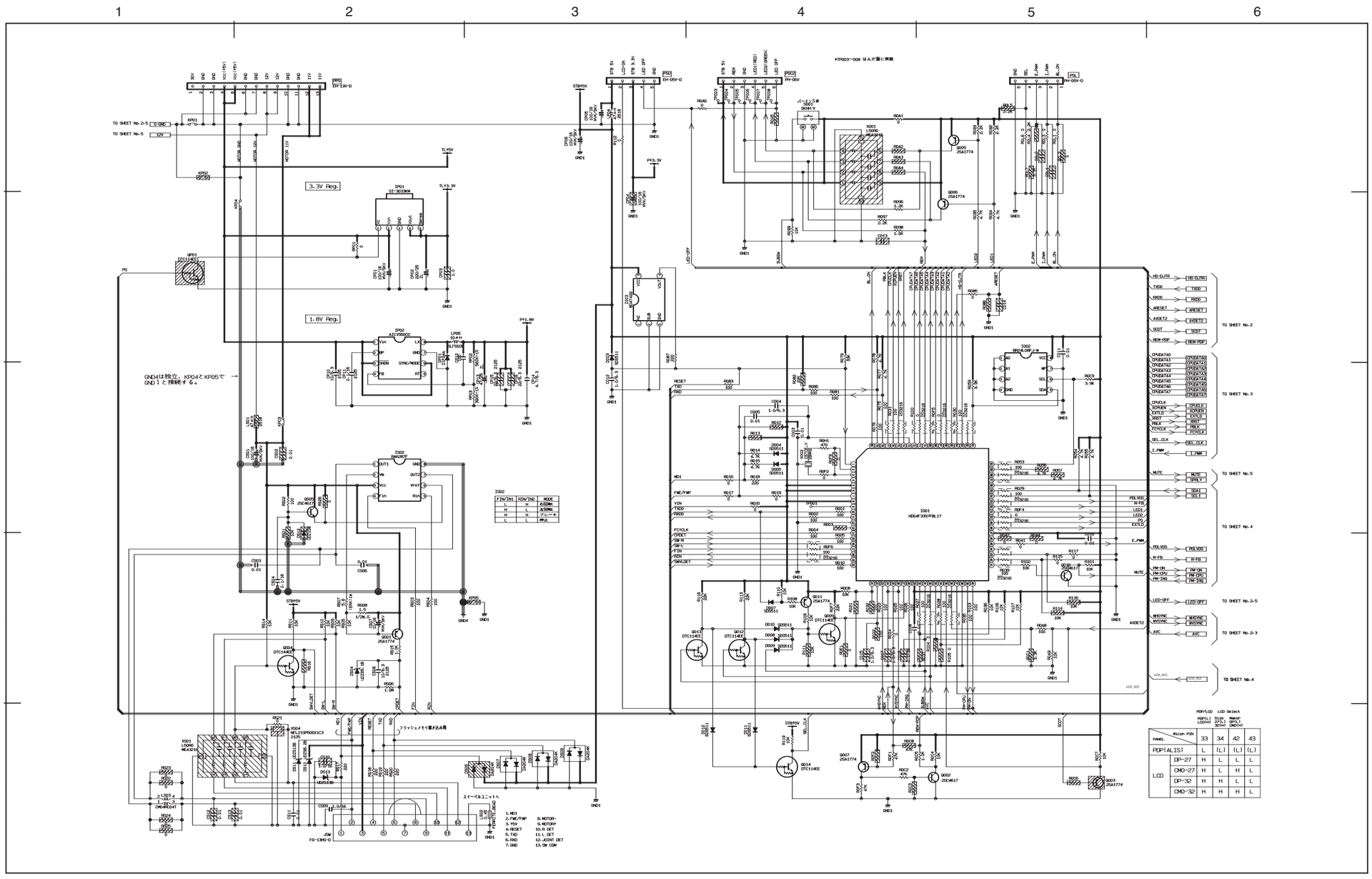
Symbol	Pin No.	V(DC)	Pin No.	V(DC)
PMS1	1	_	21	3.3V
	2	_	22	3.6V
	3	_	23	3.6V
	4	_		
	5	_		
	6	_		
	7	0v		
	8	_		
	9	_		
	10	_		
	11	0v		
	12	5.4v		
	13	0v		
	14	_		
	15	5.6v		
	16	5.6v		
	17	0v		
	18	0v		
	19	0v		
	20	3.6v		

Symbol	Pin No.	V(DC)
PFP1	1	5.5v
	2	5.5v
	3	0v
	4	0v
	5	5v
	6	5v
	7	0v

Symbol	Pin No.	V(DC)
PAN	1	_
	2	0v
	3	9.0v

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM



- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

Signal 1 of 5

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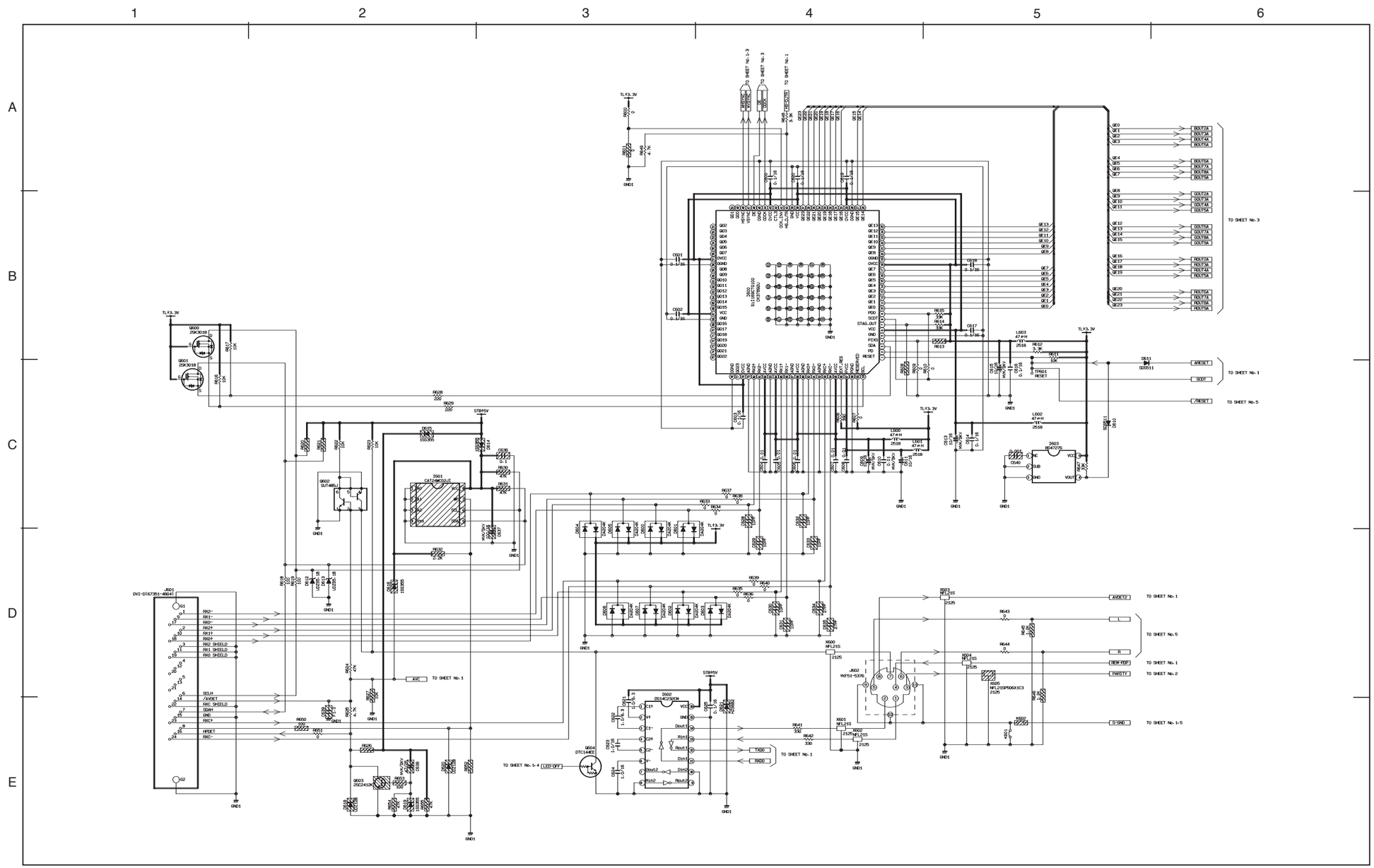
BASIC CIRCUIT DIAGRAM



- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

Signal 2 of 5

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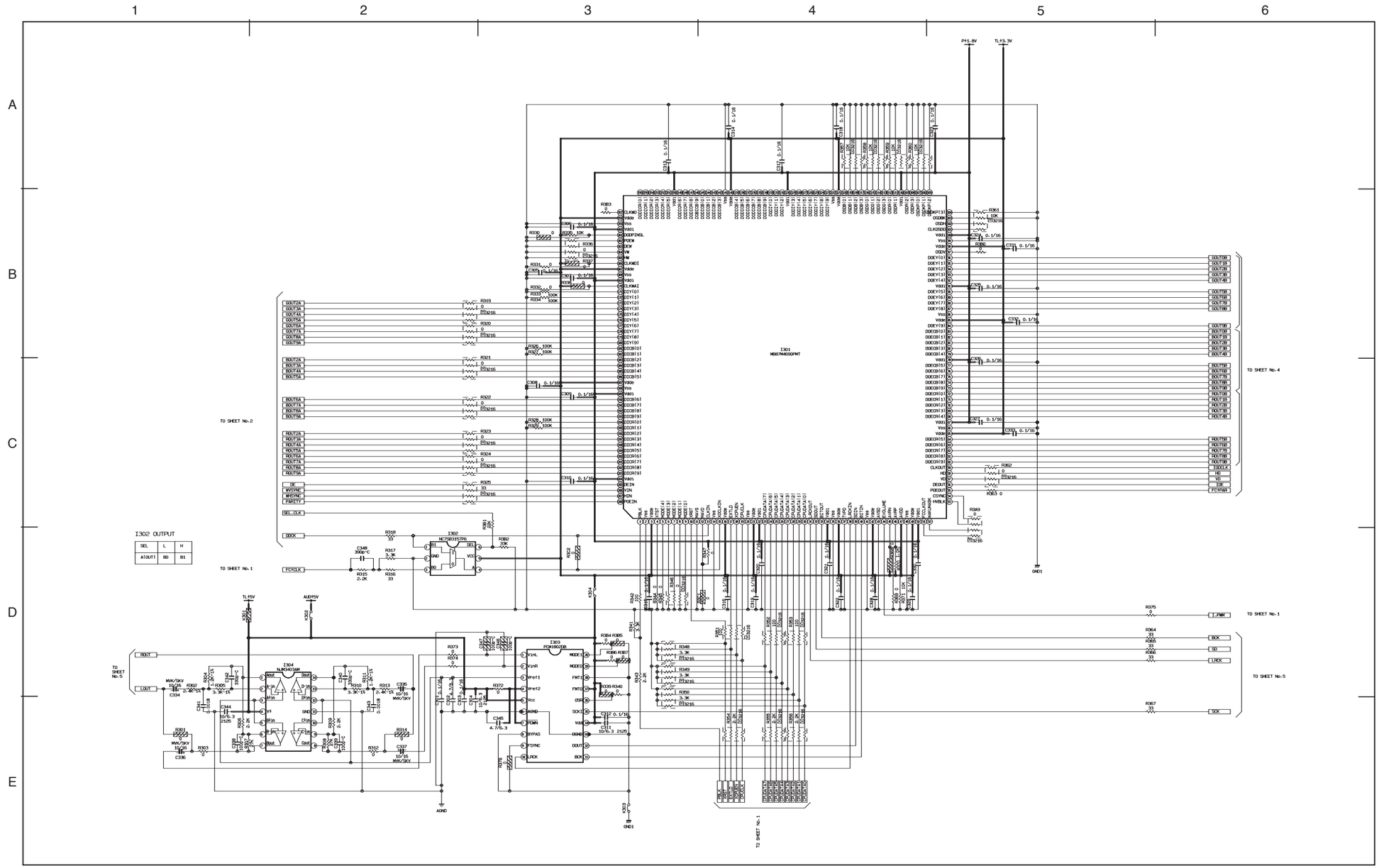
BASIC CIRCUIT DIAGRAM



- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

Signal 3 of 5

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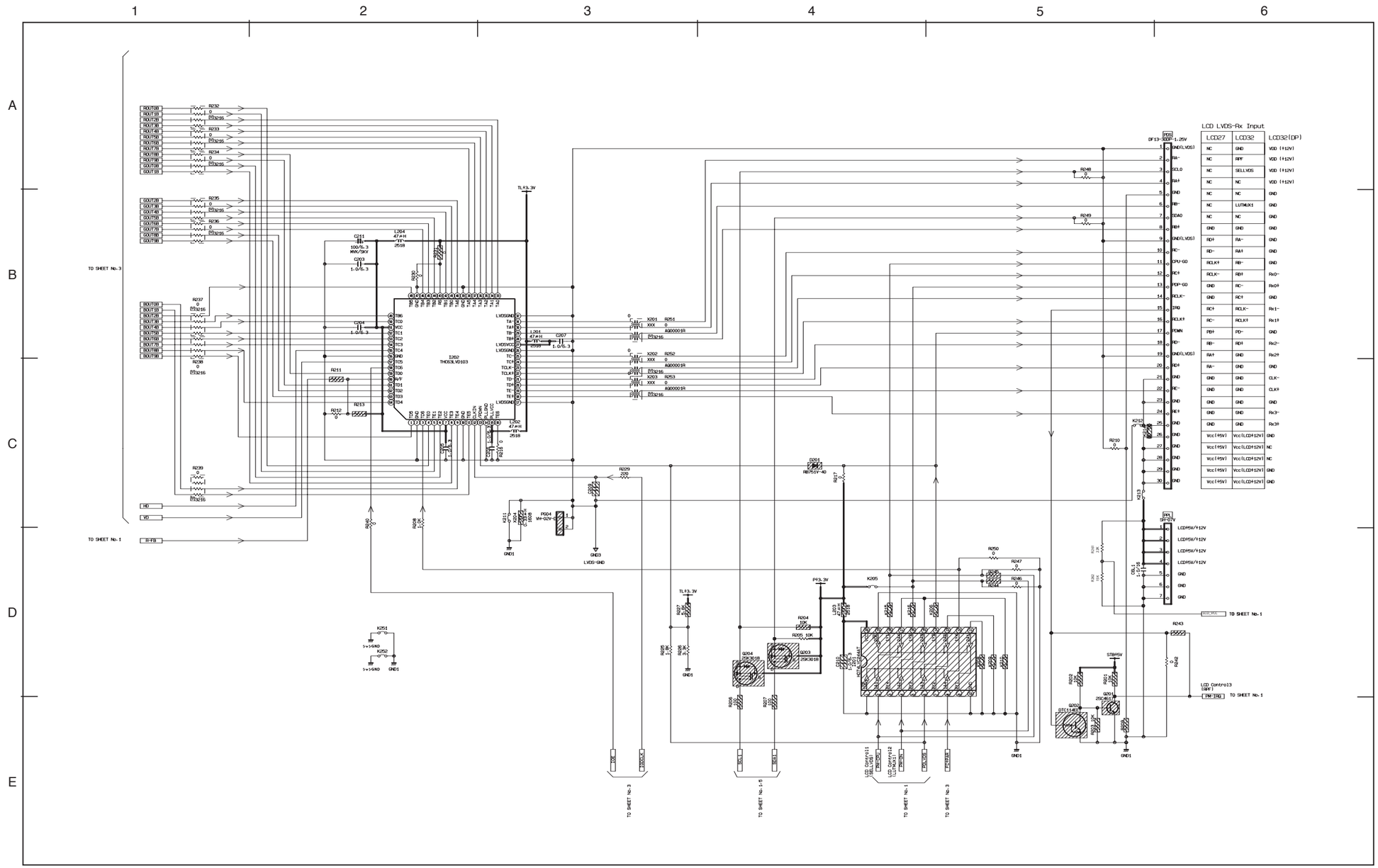
BASIC CIRCUIT DIAGRAM

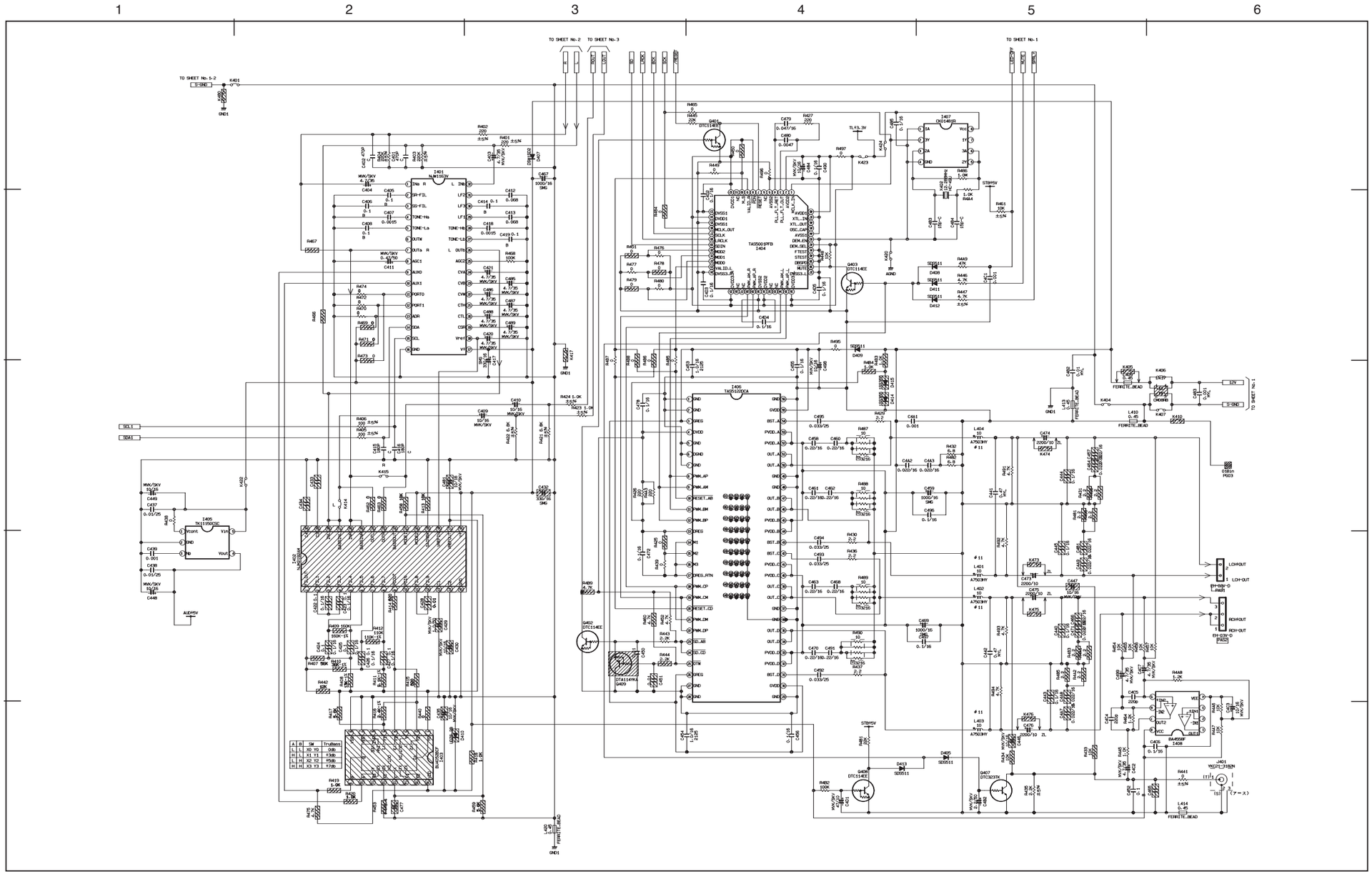


- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

Signal 4 of 5

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM

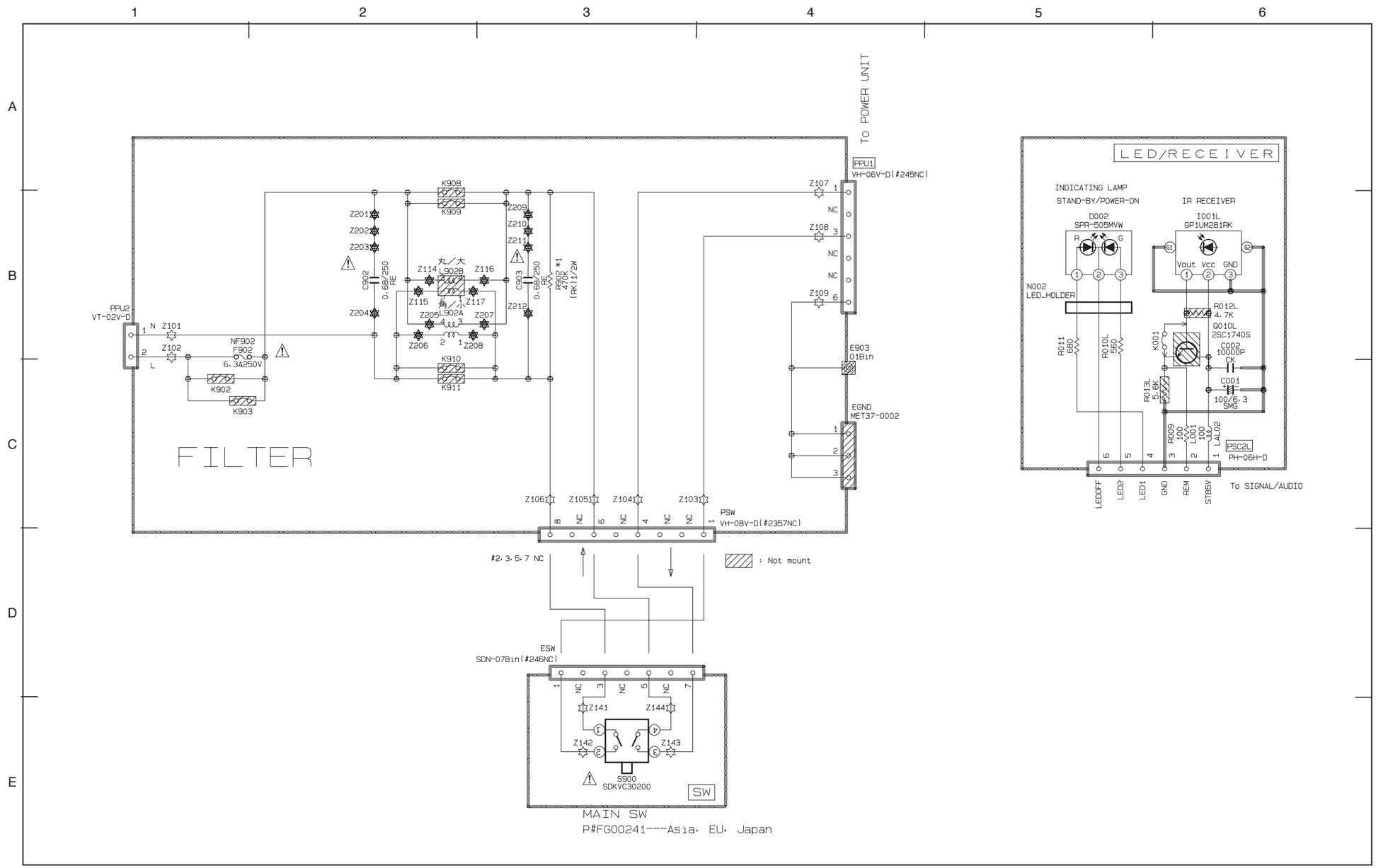


- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

Signal 5 of 5

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM



- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

Filter 1 of 1

Important Components

Below is the list of important components.

They should be under careful supervision by the parties concerned.

Control section : Incoming inspection section, Manufacture section, Manufacture engineering section, Purchasing section, Production control section, Quality assurance section, Standard section

＊Note1:Checked by Incoming inspection Data documents saved by Incoming inspection

Application MODEL: 32HDL51M

No.	Component Name	Model (P#)	Format No.		Standard	32HDL51M		
1	Resistor	RCR50T52 470kΩ1/2W (AT03661M)	R902		—	○		
2	Across Capacitor	RE type CQ-684K251WHS (AN01448S)	C902 C903		UL/CSA VDE/SEMKO SEV/DEMKO NEMKO FIMKO	○		
3	Line Filter	1.5mH (BZ05761)	L902A		With set	○		
4	Switch	SPW03N06SDKVA 302 250V AC,8A/128A (FG00241)	S900	Markings	UL/CSA VDE/SEMKO SEV/DEMKO NEMKO BSI/FIMKO	○		
5	AC Inlet	SUP-C14608-F 8A/250V (EP00013)	E901	Markings	With set	○	—	
6	PWB (MONITOR PWB)	MCL-E-67 (JA0575*)	#B	Markings		○	—	
7	Power Code	COD-125V10A UL/CSA (EV01841)	E01	Markings	UL/CSA	○	—	
8	LCD Display Panel Module	FLT-TX80D16VC0CAB (DD0068*)	A	Markings	UL/CSA	○	—	
9	Power Unit	POWP62783 (HA0152*)	U1	Markings	UL/CSA	○	—	

List of Security Components

Application MODEL: 32HDL51M

Item #	Name	P#	Circuit No.	Check Item	Checked by	Standard
1	Fuse	FN000439 6.3A/250V	F902	Based on Management Test Standard	Incoming inspection section	UL/CSA
				Markings	PWB Ass'Y Department	

6. SAFETY ISSUE PARTS & PS PROCESS CONTROL LIST

1. Important Components

Check Item : Refer to Parts Inspection Sheets.

No.	CTT. No.	P #	Description	Value Indication	Note
1	E901	EV01841	COD-125V10A UL/CSA	125V/10A	AC Power Cord
2	L901	BZ05742	LX-LINE FILTER 8MH	8mH	Line Filter
3	L902	BZ05741	LX-LINE FILTER 5.6M	5.6mH	Line Filter
4	C901	AN01443S	CQ-104K251WHS RE104	0.1 μ F/250V	Across Capacitor
5	C902	AN01443S	CQ-104K251WHS RE104	0.1 μ F/250V	Across Capacitor
6	C903	AN01443S	CQ-104K251WHS RE104	0.1 μ F/250V	Across Capacitor
7	C906	AJ00163R	CC-222M401E-DT7.5F10	2200pF/400V	Y Capacitor
8	C907	AJ00163R	CC-222M401E-DT7.5F10	2200pF/400V	Y Capacitor
9	C923	AJ00163R	CC-222M401E-DT7.5F10	2200pF/400V	Bridge Capacitor
10	H901	CW00352	uPM0518SA	—	SW-Reg. Module
11	J901	2676371	PLG-AC INLET SK-1019	—	AC Inlet
12	T901	BT02211	PT-EE38F20J-AVC5	—	SW Transformer
13	S901	FJ00142	RL-ALKS329	—	AC Relay
14	I902	CP05431	TLP621	—	Photo coupler
15	I903	CP05431	TLP621	—	Photo coupler
16	R901	AT03672M	RE-335J1-02NT RCR50	3.3MΩ 1/2W	Leakage Resistor
17	F902	FN00404	FU-2R5A-JUI(ULTSCN1)	2.5A/AC125V	FUSE

2. Security Components

No.	CTT.No.	P#	SPEC.	Check Item	Application L#:
1	F901	FN00062	Fuse 5A/AC125V	Markings	AV PWB ASS'Y LJP0764

IC's & UNITS

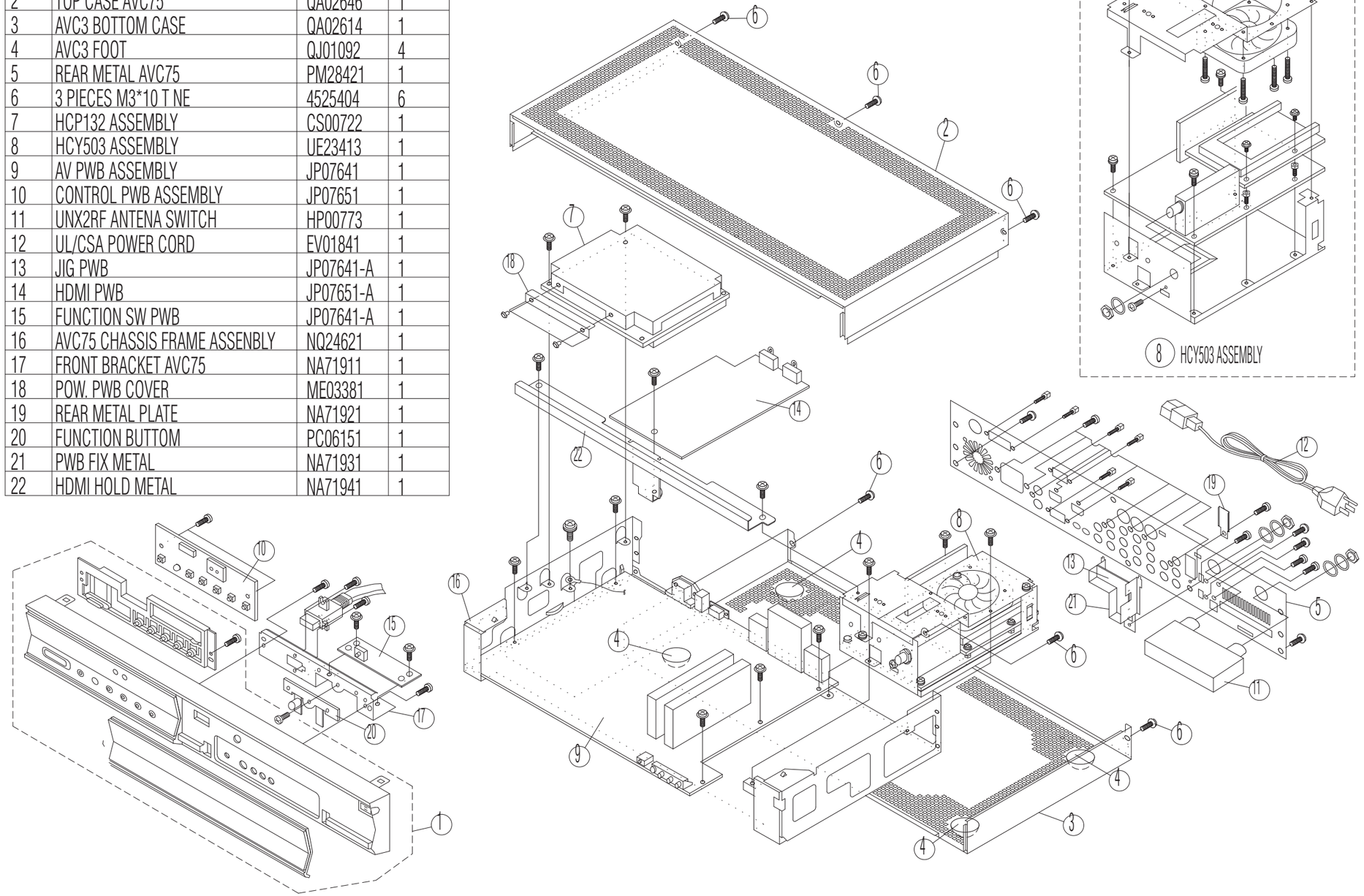
No.	CIR.NO.	P#	Description	Function	ASS'Y	Remarks
1	H901	CW00352	UPM0518SA	SWITCHING REGULATOR	AV	
2	I001	CK38994U	M30626FHPFP-B	TV u-com	AV	
3	I002	CK37052R	BD4742G-TR	RESET IC	AV	
4	I003	CK39652R	BR24L32FJ-WE2	EEPROM	AV	
5	I004	CK50121R	CD4053BPWR	FLASH/RS232C SW	AV	
6	I101	CK50391U	M306V7MG-093FP	CCD u-com	AV	
7	I102	CK34761R	SN74LV221APWR	H-SYNC PHASE SHIFT	AV	
8	I103	CK37218R	TK11150CSCL	+5.0V REGULATOR	AV	
9	I104	CK37216R	TK11133CSCL	+3.3V REGULATOR	AV	
10	I201	CK37413U	S3C80F9XKN-QZ87	IR-BLASTER	AV	
11	I202	CK39653R	BR24L16FJ-WE2	EEPROM	AV	
12	I203	CK50121R	CD4053BPWR	PDP/IR BLASTER SW	AV	
13	I204	CK37216R	TK11133CSCL	+3.3V REGULATOR	AV	
14	I250	CK04681R	DS14C232CMX	RS-232C DRIVER	AV	
15	I260	CK50121R	CD4053BPWR	MAIN/SUB SYNC SW	AV	
16	I3P1	CK37218R	TK11150CSCL	+5.0V REGULATOR	AV	
17	I3P2	CK37194R	SI-3050LSA-TL	+5.0V REGULATOR	AV	
18	I401	CK39891R	MM1631XJBE	AUDIO SELECTOR	AV	
19	I402	CK39881U	MM1630AQ	VIDEO SELECTOR	AV	
20	I403	CK38377R	SI-3090KM-TL	+9.0V REGULATOR	AV	
21	I404	CK37406R	SI-3012KS-TL	+9.0V REGULATOR	AV	
22	I501	CK50001U	AN15865A	YPBPR SELECTOR	AV	
23	I502	CK50001U	AN15865A	YPBPR SELECTOR	AV	
24	I503	CK34991R	SN74ACT14PWR	SYNC INVERTER	AV	
25	I505	CK31042R	TA1287FG	MAIN CCD MIXER	AV	
26	I506	CK31042R	TA1287FG	SUB CCD MIXER	AV	
27	I5H1	CK50121R	CD4053BPWR	CCD MAIN/SUB SW	AV	
28	I5P1	CK38377R	SI-3090KM-TL	+9.0V REGULATOR	AV	
29	I901	CP07824U	STR-G6623A-LF1128	SWITCHING REGULATOR	AV	
30	I902	CP05431	TLP621(D4-GRL-LF2)	OPT.ISOLATOR	AV	
31	I903	CP05431	TLP621(D4-GRL-LF2)	OPT.ISOLATOR	AV	
32	I931	CK37171R	SPI-8010A	+5.5V REGULATOR	AV	
33	I933	CW00361	MPD4S007S	+3.3V/+1.8V REGULATOR	AV	
34	I934	CK37218R	TK11150CSCL	+5.0V REGULATOR	AV	
35	IA01	CP02601	AN5285K	PERFECT VOL.	AV	
36	IA02	CK31031R	BA3530FS-E2	HEAD PHONE AMP.	AV	
37	IP01	CK39761R	MD1222N	+3.3V REGULATOR	AV	
38	IP03	CK36271R	AD7414	TEMP. CENSOR	AV	
39	IP04	CK37406R	SI-3012KS-TL	+5.0V REGULATOR	AV	
40	IP05	CK37141R	MD1422N	+5.4V REGULATOR	AV	
41	IV01	CK37212R	TK11125CSCL	+2.5V REGULATOR	AV	
42	IV02	CK38701U	UPD64084GC-8EA-A	3D Y/C SEP.	AV	
43	IV03	CK37053R	BD4727G-TR	RESET IC	AV	
44	IV04	CK07631R	TC90A45F	2L COMB. For SUB	AV	
45	IV06	CK38102R	NJM2584AM(TE1)	YPbPr SELECTOR	AV	
46	IV08	CK38721R	ITA1383FG(DRY EL)	MAIN VIDEO/CHROMA	AV	
47	IV09	CK38102R	NJM2584AM(TE1)	YPbPr SELECTOR	AV	

No.	CIR. NO.	P#	Description	Function	ASS'Y	Remarks
48	IV12	CK38721R	TA1383FG(DRY EL)	SUB VIDEO/CHROMA	AV	
49	U301	HC00495/6	F-E-VO-A32FT	1st Tuner	AV	
50	U302	HC00504/5	F-E-VO-A69FT	2nd Tuner	AV	
51	DM01	CH02031R	SPR-505MVW	LED	CONT	
52	DM02	CH02721	PNZ313B	I/R Receiver	CONT	
53	HM01	CZ01091	GP1UA261XK	I/R Receiver	CONT	
54	IJ01	CK39656R	BR24L02FJ-WE2	EEPROM	CONT	
55	IJ02	CK37051R	BD4729G-TR	RESET IC	CONT	
56	IJ03	CK39811U	SII9993CTG100	HDMI RECIEVER	CONT	
57	IJ04	CK32011R	TC74HC151AF	SPDIF BUFFER	CONT	
58	IJ05	CK39821R	PCM1754DBQR	AUDIO D/A	CONT	
59	IJ06	CK07141R	BA4558F-E2	AUDIO AMP/FILTER	CONT	
60	IJ07	CK39656R	BR24L02FJ-WE2	EEPROM	CONT	
61	IJ08	CK37051R	BD4729G-TR	RESET IC	CONT	
62	IJ09	CK39811U	SII9993CTG100	HDMI RECIEVER	CONT	
63	IJ10	CK39821R	PCM1754DBQR	AUDIO D/A	CONT	
64	IJ11	CK07141R	BA4558F-E2	AUDIO AMP/FILTER	CONT	
65	IJ12	CK37141R	MD1422N	+3.3V REGULATOR	CONT	
66	IM01	CK38791R	NJM2137V-TE1	Amplifier	CONT	
67	EANT	HP00773	UNX2RF YAA41-0171G	ANT SW BOX	FINAL	
68	A21	CS00722	HCP132 ASS'Y	Flex Controller	FINAL	
69	A31	UE23413	HCY503 ASS'Y	Digital Module	FINAL	

EXPLODED VIEW
AVC76

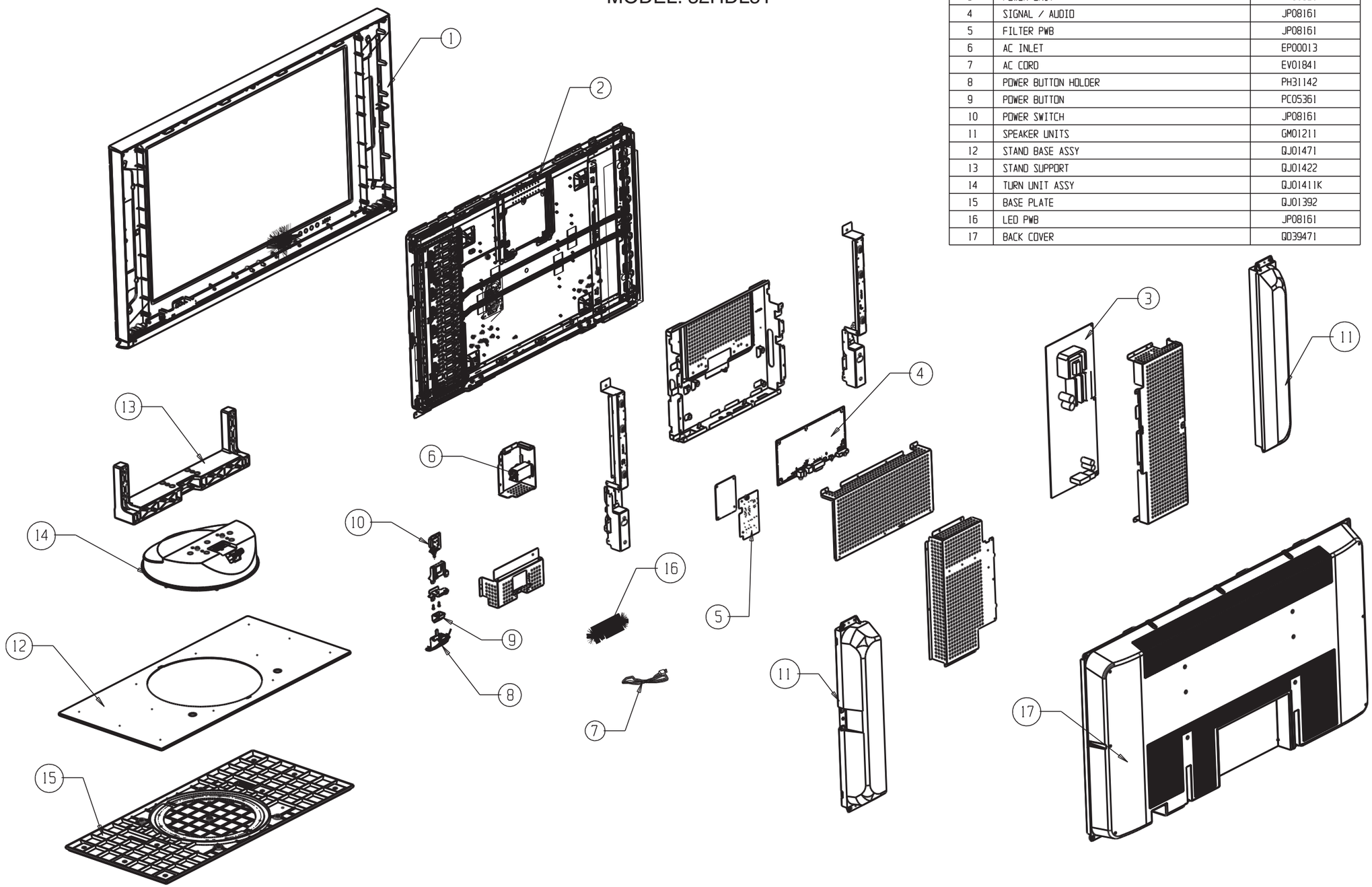
AVC76 EXPLODED VIEW PARTS LIST

ITEM	DISCRIPTION	PART NO.	QTY.
1	FRONT PANEL ASSEMBLY	PH31944	1
2	TOP CASE AVC75	QA02646	1
3	AVC3 BOTTOM CASE	QA02614	1
4	AVC3 FOOT	QJ01092	4
5	REAR METAL AVC75	PM28421	1
6	3 PIECES M3*10 T NE	4525404	6
7	HCP132 ASSEMBLY	CS00722	1
8	HCY503 ASSEMBLY	UE23413	1
9	AV PWB ASSEMBLY	JP07641	1
10	CONTROL PWB ASSEMBLY	JP07651	1
11	UNX2RF ANTENA SWITCH	HP00773	1
12	UL/CSA POWER CORD	EV01841	1
13	JIG PWB	JP07641-A	1
14	HDMI PWB	JP07651-A	1
15	FUNCTION SW PWB	JP07641-A	1
16	AVC75 CHASSIS FRAME ASSENBLY	NQ24621	1
17	FRONT BRACKET AVC75	NA71911	1
18	POW. PWB COVER	ME03381	1
19	REAR METAL PLATE	NA71921	1
20	FUNCTION BUTTOM	PC06151	1
21	PWB FIX METAL	NA71931	1
22	HDMI HOLD METAL	NA71941	1



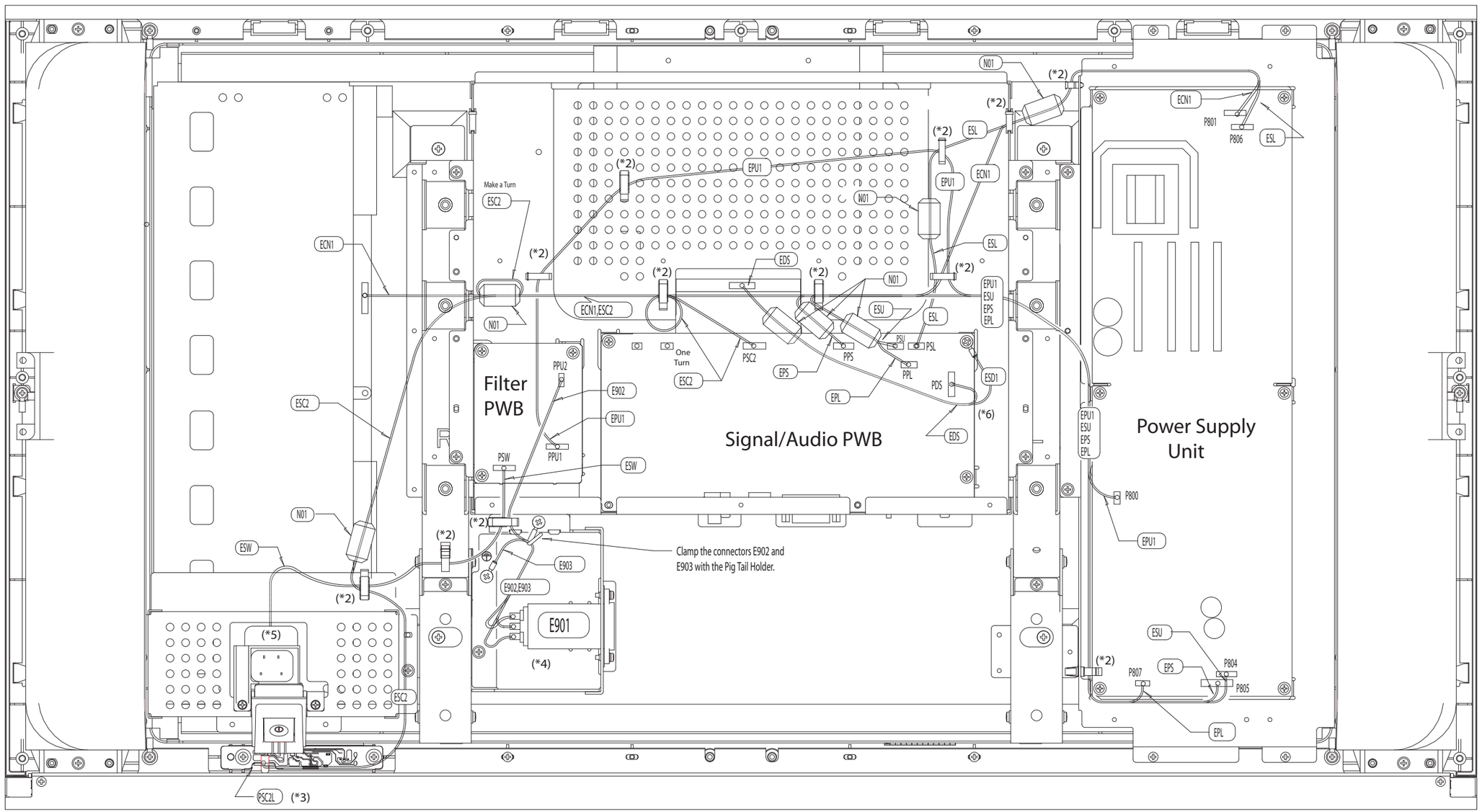
EXPLODED VIEW MONITOR

EXPLODED VIEW
MODEL: 32HDL51



ITEM	DESCRIPTION	PART No.
1	FRAME ASSEMBLY	QD39541
2	LCD PANEL MODULE	DD00681
3	POWER UNIT	HA01521
4	SIGNAL / AUDIO	JP08161
5	FILTER PWB	JP08161
6	AC INLET	EP00013
7	AC CORD	EV01841
8	POWER BUTTON HOLDER	PH31142
9	POWER BUTTON	PC05361
10	POWER SWITCH	JP08161
11	SPEAKER UNITS	GM01211
12	STAND BASE ASSY	QJ01471
13	STAND SUPPORT	QJ01422
14	TURN UNIT ASSY	QJ01411K
15	BASE PLATE	QJ01392
16	LED PWB	JP08161
17	BACK COVER	QD39471

32HDL51 Model Wire Dress Drawing (Monitor)

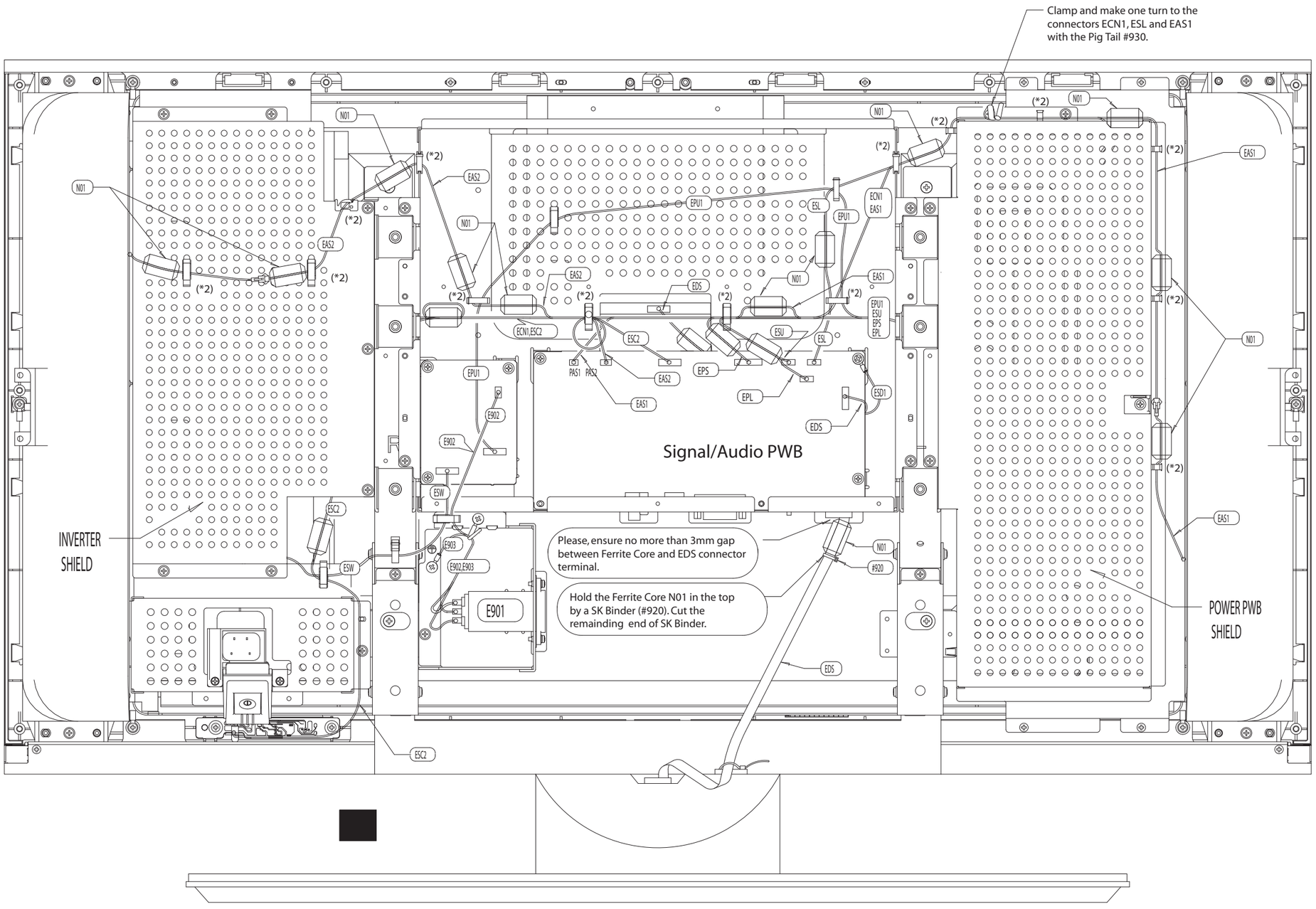


NOTE 1: This drawing shows Wire Dressing BEFORE assembly of Inverter Shield , Power PWB Shield and EAS1 & EAS2 wires.

NOTE 2: Refer to 3rd. page of Wire Dressing drawing for descritions and preparations of (*2), (*3), (*4), (*5) and (*6).

(1/3)

32HDL51 Model Wire Dress Drawing (Monitor)



NOTE 1: This drawing shows Wire Dressing AFTER assembly of Inverted Shield, Power PWB Shield and EAS1 & EAS2 wires.

(2/3)

NOTE 2: Refer to 3rd. page of Wire Dressing Drawing for descriptions and preparations. (*2).

32HDL51 Model Wire Dress Drawing (Monitor)

PLC1 (32") Wiring Diagram Specification

Specification

1. This Drawing shows the wire dressing and connectors' connection of PLC1.
2. Connectors with wire should be inserted into Plug Pin Posts as shown on the table below.
3. Into Plug Pin Post with lock Function, connector housing should be inserted deeply until it can be locked.
4. Refer to below table for connection of connector.

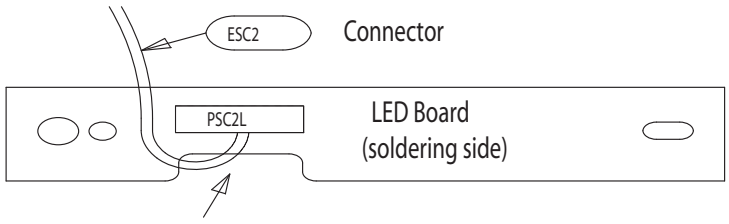
Connectors with wire	Plug Pin Post	Board Name	Plug Pin Post	Board Name	Note
ESW	-	SW Board	PSW	Filter Board	
E902	-	Noise Filter	PPU2	Filter Board	
E903	-	Noise Filter	-	Metal	
EAS1	-	L Speaker	PAS1	Signal/Audio Board	
EAS2	-	R Speaker	PAS2	Signal/Audio Board	
EPU1	PPU1	Filter Board	P800	Power Supply Unit	
EDS	PDS	Signal/Audio Board	-	Panel	
ESC2	PSC2	Signal/Audio Board	PSC2L	LED	
EPS	PPS	Signal/Audio Board	P805	Power Supply Unit	
ESU	PSU	Signal/Audio Board	P804	Power Supply Unit	
ESL	PSL	Signal/Audio Board	P806	Power Supply Unit	
EPL	PPL	Signal/Audio Board	P807	Power Supply Unit	
ECN1	P801	Power Supply Unit	-	Inverter	

5. Cable With 1P terminal (E903) should be fixed with screws.
6. When closing ferrite core, the claw of core should be locked and clicked surely.

(*1): Wires should be fixed inside Lead Clamp and locked if available.

(*2): Wires should be fixed into Lead Holder surely and locked if available.

(*3) Part Specification

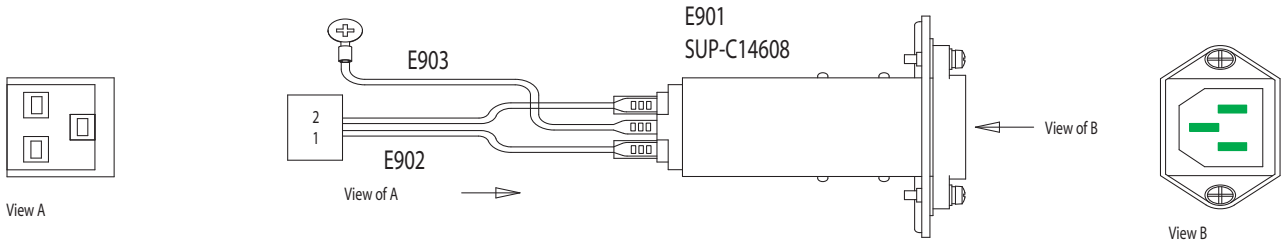


* ESC2 connector should be dressed through the cutting portion of the LED Board.

32HDL51 Model Wire Dress Drawing (Monitor) (continued)

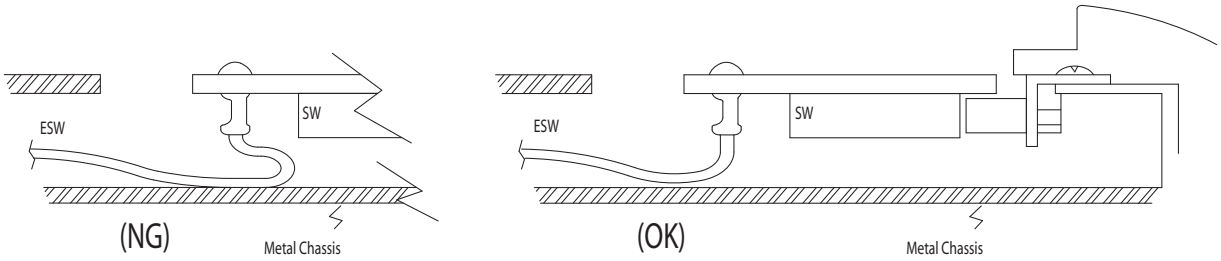
(*4) Part Specification

Connection of E902/E903 to E901(AC Inlet).



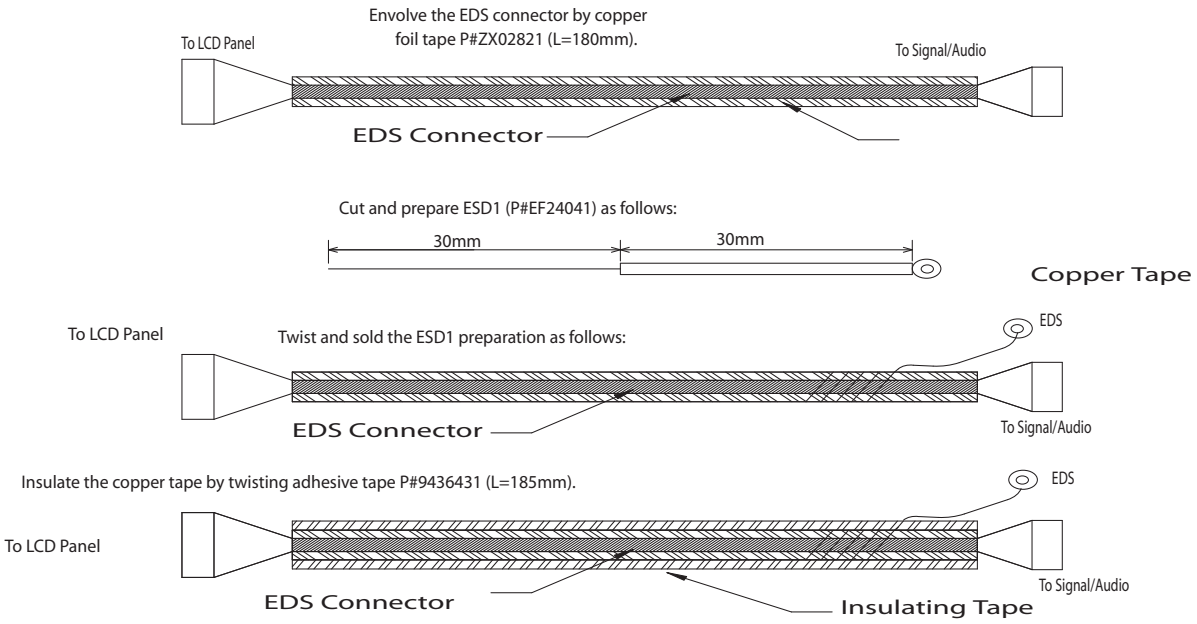
NOTICE: Fasten Terminals should be inserted to the root of E901 pins.

(*5) Part Specification



Should be style the ESW Connector as above.

(*6) Preparation of EDS.



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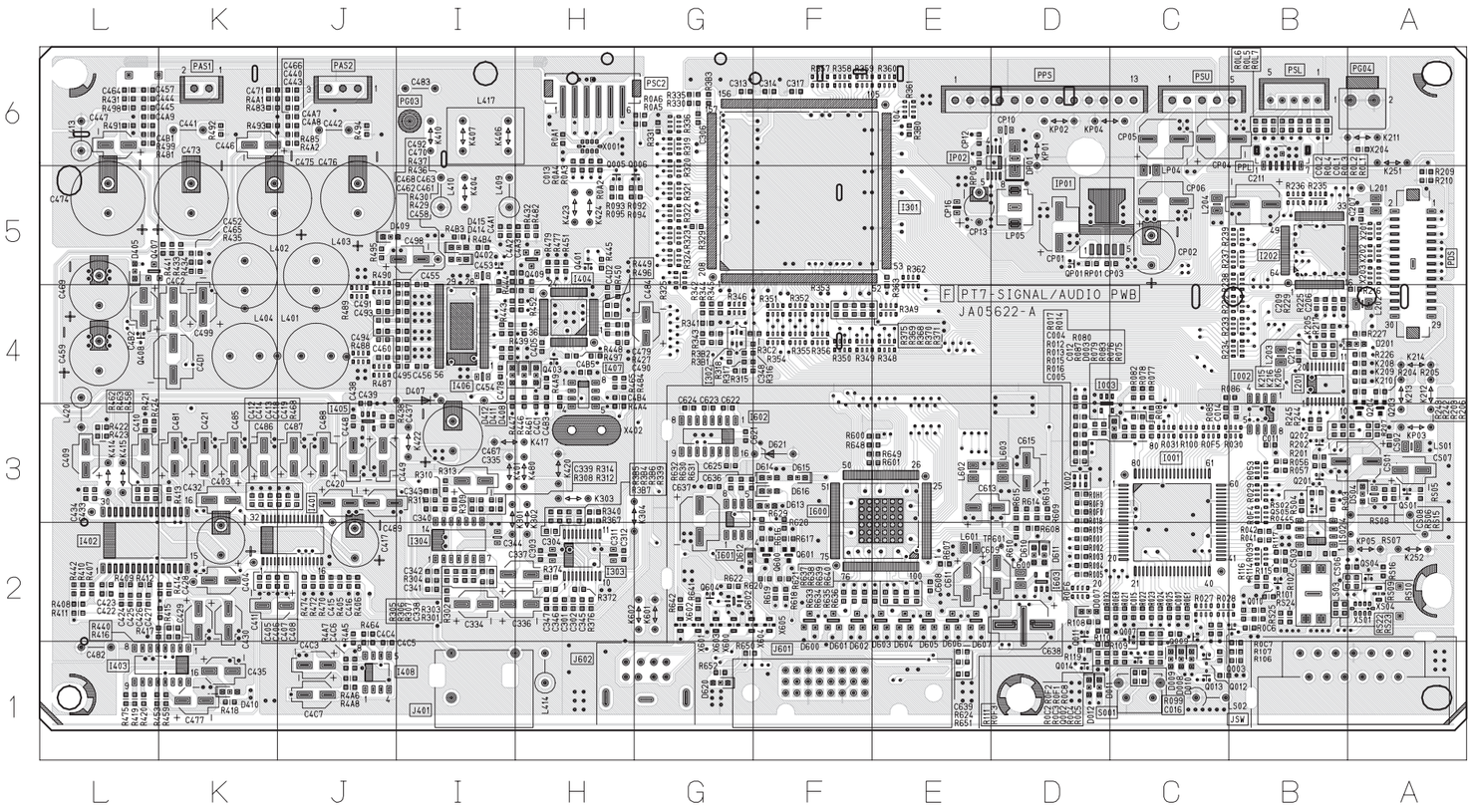
PRINTED CIRCUIT BOARDS

• SIGNAL / AUDIO BD. (Side A)



• Components Location (Side A)

X	—
D602	F1
D603	E1
D604	E1
D605	E1
D606	E1
D607	E1
D610	D2
D611	D2
D612	G2
D613	F2
D614	F3
D615	F3
D616	F2
D620	G1
DP01	D5
DS04	A2
I001	C2
I002	B3

X	—
I003	D3
I201	B3
I202	B5
I301	F5
I302	G4
I303	H2
I304	I2
I401	J2
I402	L2
I403	K1
I404	H4
I405	J3
I406	I4
I407	H3
I408	J1
I600	E2
I601	G2
I602	G3

X	—
I603	D2
IP01	D5
IP02	D5
IS02	B2
K205	B4
K206	B4
K208	A4
K209	A3
K210	A3
K215	B4
K216	B4
L201	A5
L202	A4
L203	B4
L204	C5
L600	D2
L601	E2
L602	E3

X	—
L603	D3
LP04	C5
LP05	D5
LS01	A3
LS03	B2
PDS	A4
PPL	B5
PSC2	H6
Q002	C1
Q003	B1
Q005	H5
Q006	G5
Q007	C1
Q009	C1
Q010	B2
Q011	D1
Q012	C1
Q013	C1

X	—
Q014	D1
Q201	B3
Q202	B3
Q203	A3
Q204	A3
Q401	H4
Q402	I4
Q403	H4
Q407	L4
Q408	L4
Q409	H4
Q600	F2
Q601	F2
Q602	G2
Q604	G2
QP01	D4
QS01	A2
QS04	A2

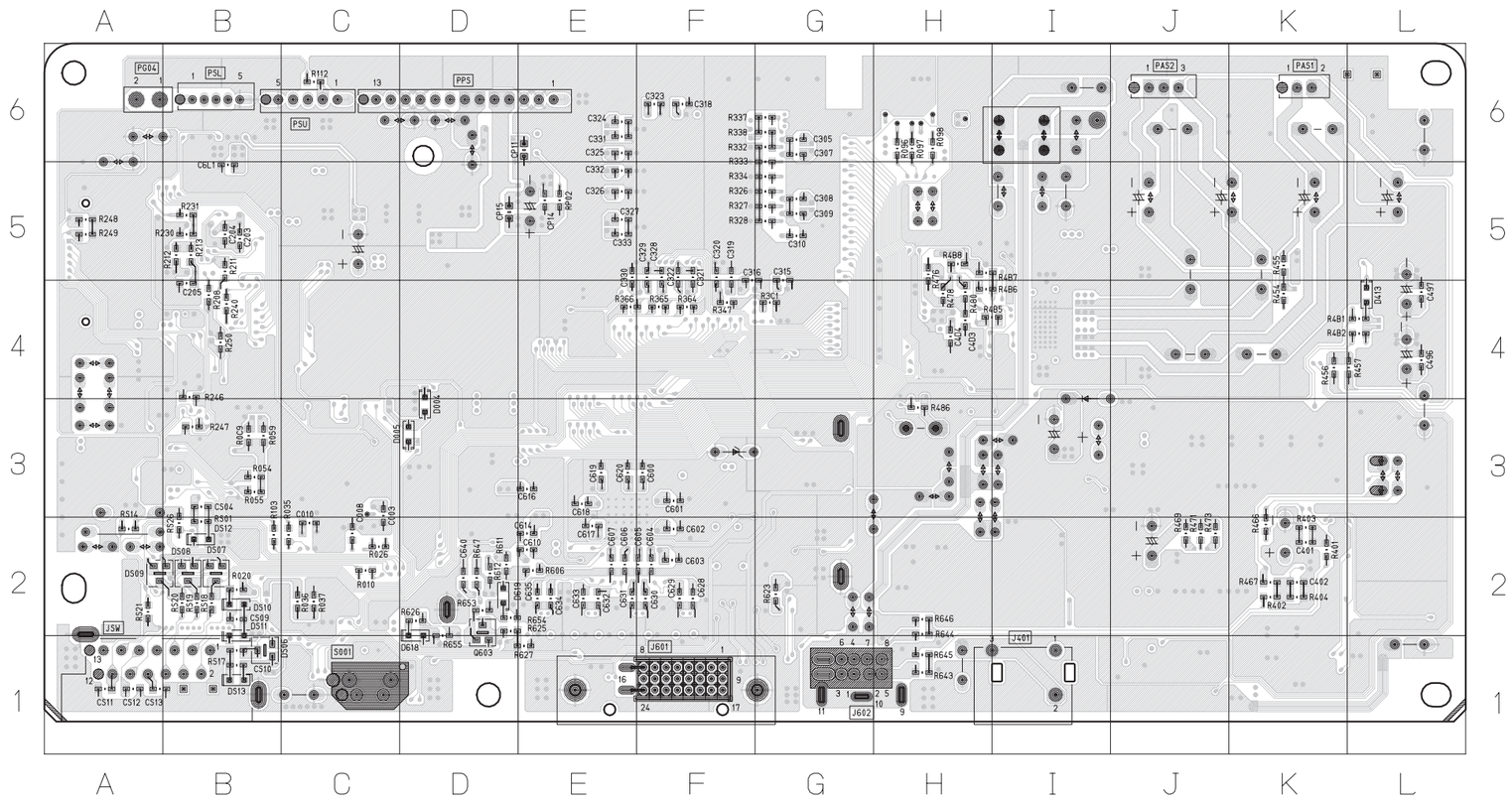
X	—
QS05	B2
TP601	D2
X001	H5
X002	D3
X201	A5
X202	A4
X203	A4
X204	A5
X600	G1
X601	G1
X602	G1
X603	G1
X604	G1
X605	F1
XS01	A2
XS04	A2

X : Symbol

— : Location

PRINTED CIRCUIT BOARDS

• SIGNAL / AUDIO BD. (Side B)



• Components Location (Side B)

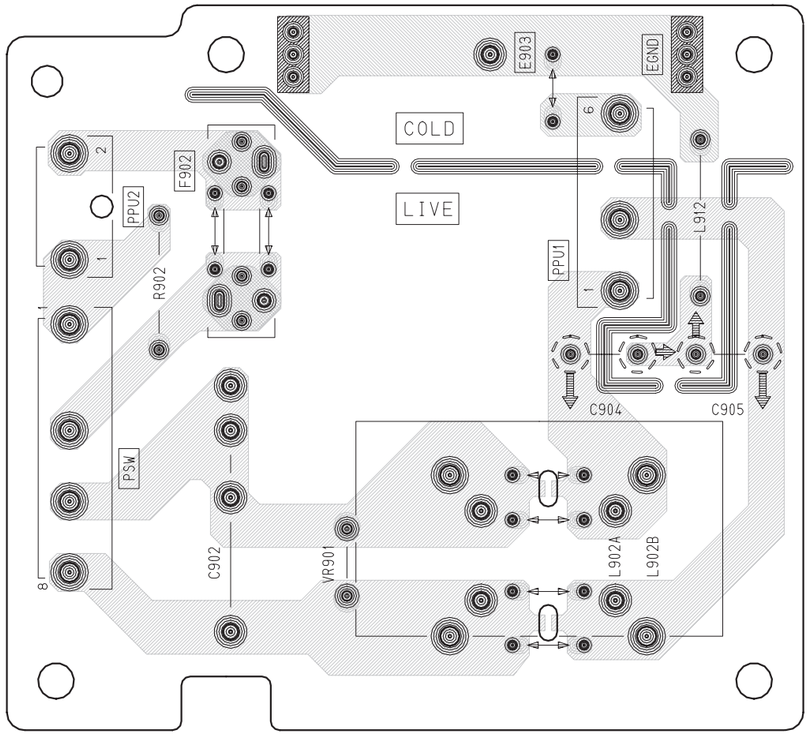
X	—
D004	D3
D005	D3
D413	L4
D618	D1
D619	D2
DS06	B1
DS07	B2
DS08	B2
DS09	A2
DS10	B2
DS11	B1
DS12	B2
DS13	B1
Q603	D1

X : Symbol

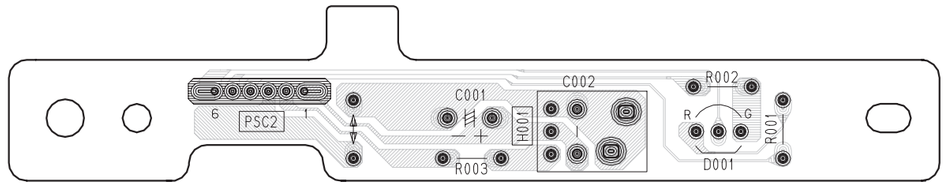
— : Location

PRINTED CIRCUIT BOARDS

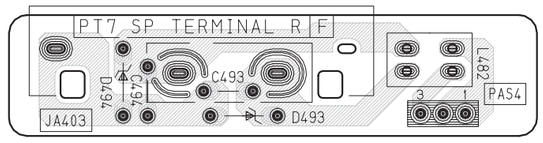
• FILTER P.W.B.



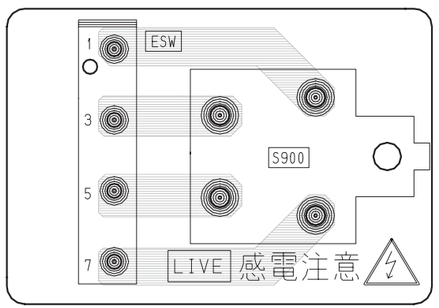
• LED P.W.B.



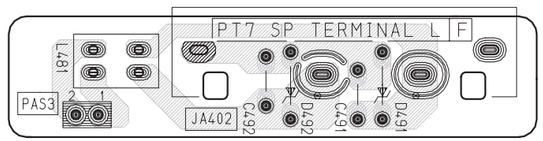
• SP TERMINAL R.



• AC CONNECTION BD.



• SP TERMINAL L.



REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

ABBREVIATIONS

Capacitors:
- AL: Aluminum Electrolytic
- CD: Ceramic Disc
- EL: Electrolitic
- PF: Polyester Film
- PP: Polypropylene
- PL: Plastic
- TA: Tantalum
- PR: Paper
- TM: Trimmer
- MC: Mylar

Resistors:
- CF: Carbon Film
- CC: Carbon Composition
- MF: Metal Oxide
- VR: Variable Resistor
- WW: Wire Wound
- FR: Fuse Resistor
- MG: Metal Grazed

Semiconductors:
- TR: Transistor
- DI: Diode
- ZD: Zener Diode
- VA: Varistor
- TH: Termistor
- IC: Integrated Circuit

SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
		(AVC UNIT)			
		PSB AVC76 AV			
		CAPACISTORS			
C001	AD00629R	CEC100M16-EWMT 105	C116	AD00629R	CEC100M16-EWMT 105
C002	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C151	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C005	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	C152	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C008	AD00622R	CEC470M06-EWMT 105	C153	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE
C009	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	C154	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE
C010	AD00658R	CAP.CHIP-ELECTRO 100UF 16V	C170	0893204R	CAP 1608CHIP 470PFKB 50V TAPE
C011	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C171	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V
C012	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C172	0893205R	CAP 1608CHIP 560PFKB 50V TAPE
C013	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C173	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C014	AD00622R	CEC470M06-EWMT 105	C180	0893204R	CAP 1608CHIP 470PFKB 50V TAPE
C015	0893213R	CAP1608CHIP 2200PFKB 50V TAPE	C181	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V
C016	AD00629R	CEC100M16-EWMT 105	C182	0893205R	CAP 1608CHIP 560PFKB 50V TAPE
C017	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C183	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C018	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	C190	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C019	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	C191	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C0F1	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C192	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)
C0F2	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)	C193	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)
C0H1	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C194	AD00629R	CEC100M16-EWMT 105
C0H2	AD00629R	CEC100M16-EWMT 105	C195	AD00629R	CEC100M16-EWMT 105
C0K1	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C201	AD00658R	CAP.CHIP-ELECTRO 100UF 16V
C0K2	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C202	AD00629R	CEC100M16-EWMT 105
C0K3	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C205	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C0L1	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C206	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C101	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	C207	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C102	0893131R	CAP 1608CHIP 220PFJCH 50V TAPE	C208	AD00658R	CAP.CHIP-ELECTRO 100UF 16V
C103	AA01113R	CCC225K06-B-16CT	C209	AD00629R	CEC100M16-EWMT 105
C104	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	C210	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C105	0893131R	CAP 1608CHIP 220PFJCH 50V TAPE	C211	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)
C106	AA01113R	CCC225K06-B-16CT	C230	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C109	0893104R	CAP 1608CHIP 2PFCCK 50V TAPE	C250	AD00622R	CEC470M06-EWMT 105
C110	0893245R	CAP 1608CHIP 15000PFKB 50V TAPE	C251	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C111	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C252	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C112	AD00629R	CEC100M16-EWMT 105	C253	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C115	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C254	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
C255	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	C451	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C260	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C452	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C261	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	C453	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C262	AD00631R	CEC220M16-EWMT 105	C454	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C263	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C455	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C264	AD00629R	CEC100M16-EWMT 105	C456	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C280	AA01799R	CCC472K50-B-16CT	C461	AD00629R	CEC100M16-EWMT 105
C281	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	C462	AD00629R	CEC100M16-EWMT 105
C282	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	C463	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C283	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C464	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C284	AD00622R	CEC470M06-EWMT 105	C465	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C285	AD00629R	CEC100M16-EWMT 105	C466	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C286	0893217R	CAP 1608CHIP 4700PFKB 50V TAPE	C467	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C287	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	C468	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C309	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	C469	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C310	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	C470	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C313	0800352R	CAP.-ELECTRO.470UF 10V	C471	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C314	0800352R	CAP.-ELECTRO.470UF 10V	C472	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C315	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	C473	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C316	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	C474	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C317	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	C475	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C318	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	C476	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C319	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	C477	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C320	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	C478	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C322	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	C479	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C323	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	C480	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C325	0893247R	CAP.CHIP-CERAMIC 18000PF 50V TAPE	C481	AD00631R	CEC220M16-EWMT 105
C326	0800352R	CAP.-ELECTRO.470UF 10V	C482	0893222R	CAP 1608CHIP10000PFKB 50V TAPE
C327	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	C484	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C3P1	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	C485	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C3P2	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	C486	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C3P3	AD00658R	CAP.CHIP-ELECTRO 100UF 16V	C487	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C3P4	AD00658R	CAP.CHIP-ELECTRO 100UF 16V	C488	AD00631R	CEC220M16-EWMT 105
C3P5	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C492	0800352R	CAP.-ELECTRO.470UF 10V
C401	AD00658R	CAP.CHIP-ELECTRO 100UF 16V	C493	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C402	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C494	AD00631R	CEC220M16-EWMT 105
C405	AA00931R	CAP. CERAMIC 2012 (1UF 10V)	C495	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)
C406	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	C496	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)
C407	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	C4A6	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)
C408	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C4L1	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C409	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	C501	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)
C410	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	C502	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)
C411	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C503	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)
C412	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	C508	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C413	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	C509	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V
C414	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C510	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)
C416	AA01115R	CAP.CHIP1608-B-4.7UF6.3V	C511	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)
C418	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	C512	AA01802R	CCC103K50-B-16CTMCH18
C421	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	C516	AA01802R	CCC103K50-B-16CTMCH18
C422	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C518	AA01101R	CERAMIC CAPACITOR(1UF 10V-F)
C423	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	C519	AD00658R	CAP.CHIP-ELECTRO 100UF 16V
C424	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C521	AD00658R	CAP.CHIP-ELECTRO 100UF 16V
C426	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C523	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)
C427	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	C525	AD00658R	CAP.CHIP-ELECTRO 100UF 16V
C428	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C527	0893184R	CERAMIC CAPACITOR(22000PF 16V)
C429	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	C528	AD00658R	CAP.CHIP-ELECTRO 100UF 16V
C430	0800352R	CAP.-ELECTRO.470UF 10V	C529	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C431	0800352R	CAP.-ELECTRO.470UF 10V	C530	0893222R	CAP 1608CHIP10000PFKB 50V TAPE
C432	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	C531	0893222R	CAP 1608CHIP10000PFKB 50V TAPE
C433	AD00629R	CEC100M16-EWMT 105	C537	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
C434	AD00629R	CEC100M16-EWMT 105	C538	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V
C435	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C539	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)
C436	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C540	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)
C437	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	C541	AA01802R	CCC103K50-B-16CTMCH18
C438	AD00631R	CEC220M16-EWMT 105	C545	AA01802R	CCC103K50-B-16CTMCH18
C439	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C547	AA01101R	CERAMIC CAPACITOR(1UF 10V-F)
C441	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C552	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)
C443	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	C554	AD00658R	CAP.CHIP-ELECTRO 100UF 16V
C444	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	C556	0893184R	CERAMIC CAPACITOR(22000PF 16V)
C445	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	C557	AD00658R	CAP.CHIP-ELECTRO 100UF 16V
C446	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	C558	AD00629R	CEC100M16-EWMT 105
C447	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	C559	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C448	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	C560	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C449	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C570	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)
C450	AD00658R	CAP.CHIP-ELECTRO 100UF 16V	C571	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
C572	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	C969	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)
C573	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C971	AL01848R	470UF 16V AL. ELECTROLYTIC CAPACITOR
C574	AD00629R	CEC100M16-EWMT 105	C972	0800303R	CAP.-ELECTRO. 22UF-M 50V
C575	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C973	AL01863R	220UF 35V ALUMINIUM ELECTROLYT
C576	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	C976	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)
C577	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	C977	AD00632R	CEC470M16-EWMT 105
C578	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	CA01	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C579	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	CA02	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V
C580	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	CA03	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V
C581	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	CA04	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V
C582	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	CA05	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V
C583	AD00629R	CEC100M16-EWMT 105	CA06	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V
C584	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	CA07	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V
C585	0893117R	CAP 1608CHIP 22PFJCH 50V TAPE	CA08	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C586	0893117R	CAP 1608CHIP 22PFJCH 50V TAPE	CA11	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C587	0893117R	CAP 1608CHIP 22PFJCH 50V TAPE	CA12	AD00658R	CAP.CHIP-ELECTRO 100UF 16V
C589	AD00629R	CEC100M16-EWMT 105	CA13	AA00936R	CERAMIC CAP. 2125-X5R 4.7UF 10V
C5A0	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	CA14	AA00936R	CERAMIC CAP. 2125-X5R 4.7UF 10V
C5A1	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	CA15	AD00629R	CEC100M16-EWMT 105
C5A2	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	CA16	AD00629R	CEC100M16-EWMT 105
C5A3	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	CA17	AA00936R	CERAMIC CAP. 2125-X5R 4.7UF 10V
C5A4	AD00629R	CEC100M16-EWMT 105	CA21	AD00631R	CEC220M16-EWMT 105
C5A5	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	CA22	0800344R	CAP.-ELECTRO. 330UF-M(SMG) 16V
C5A6	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	CA23	0800351R	CAP.-ELECTRO. 470UF-M 6.3V
C5A7	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	CA24	0800351R	CAP.-ELECTRO. 470UF-M 6.3V
C5A8	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	CA25	AD00629R	CEC100M16-EWMT 105
C5A9	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	CA26	AD00631R	CEC220M16-EWMT 105
C5C0	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	CA27	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C5C1	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	CA28	AD00658R	CAP.CHIP-ELECTRO 100UF 16V
C5C2	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	CA29	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V
C5C3	0893126R	CAP 1608CHIP 100PFJCH 50V TAPE	CA30	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V
C5C4	0893126R	CAP 1608CHIP 100PFJCH 50V TAPE	CA31	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C5H1	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	CA32	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C5P0	AD00658R	CAP.CHIP-ELECTRO 100UF 16V	CP02	AL01847R	330UF 16V ALUMINIUM ELECTROLYT
C5P1	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	CP03	AL01849R	1000UF 16V AL. ELECTROLYTIC CAPACITOR
C5P2	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	CP04	0893023R	CAP 2125 CHIP 47000PF-K B 25V
⚠ C901	AN01443S	ACROSS CAPA 0.1UF 250V RE104	CP05	0893031R	CAP 2125CHIP 1000PFKB 50V TAPE
⚠ C902	AN01443S	ACROSS CAPA 0.1UF 250V RE104	CP09	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
⚠ C903	AN01443S	ACROSS CAPA 0.1UF 250V RE104	CP10	0893031R	CAP 2125CHIP 1000PFKB 50V TAPE
C904	AJ00195R	CAP. CERAMIC CK45-F2EA472ZYVN	CP11	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C905	AJ00195R	CAP. CERAMIC CK45-F2EA472ZYVN	CP12	0893127R	CAP 1608CHIP 120PFJCH 50V TAPE
⚠ C906	AJ00163R	CAP. CERAMIC CS11-E2GA222MYVS	CP14	AL01833R	1000UF 6.3V AL. ELECTROLYTIC CAPACITOR
⚠ C907	AJ00163R	CAP. CERAMIC CS11-E2GA222MYVS	CP15	AL01833R	1000UF 6.3V AL. ELECTROLYTIC CAPACITOR
C908	0800318R	CAP.-ELECTRO. 47UF-M 25V	CP16	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V
C909	AL02773	ELEC.CAP.680UF/250V MXC 35*30	CP17	AD00631R	CEC220M16-EWMT 105
C911	0299977F	CAP.-POLYPROPYLENE FILM 0.0047UF-F 630V	CP18	AL01857R	470UF 25V AL. ELECTROLYTIC CAPACITOR
C912	0800318R	CAP.-ELECTRO. 47UF-M 25V	CP19	0893023R	CAP 2125 CHIP 47000PF-K B 25V
C913	AJ00155R	CAP. CERAMIC CS85-B2GA471KYVS	CP21	AD00631R	CEC220M16-EWMT 105
C915	0893037R	CAP 2125CHIP 3300PFKB 50V TAPE	CP22	0893031R	CAP 2125CHIP 1000PFKB 50V TAPE
C919	0893044R	CAP2125CHIP 10000PFKB 50V TAPE	CP23	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C922	AL00029R	CAP.-ELECTORO. 22UF-M 250V	CP24	0893031R	CAP 2125CHIP 1000PFKB 50V TAPE
⚠ C923	AJ00163R	CAP. CERAMIC CS11-E2GA222MYVS	CP25	0893044R	CAP2125CHIP 10000PFKB 50V TAPE
C930	0800353R	CAP.-ELECTRO.470UF-M 16V	CP26	0893127R	CAP 1608CHIP 120PFJCH 50V TAPE
C933	AL01851R	2200UF 16V AL. ELECTROLYTIC CAPACITOR	CP27	AA01814R	CCC104K25-B-16CT
C935	0800345R	CAP.-ELECTRO. 330UF-M(SMG) 25V	CP28	AL01834R	2200UF 6.3V AL. ELECTROLYTIC CAPACITOR
C936	AL01858R	1000UF 25V AL. ELECTROLYTIC CAPACITOR	CP33	AA01814R	CCC104K25-B-16CT
C937	AL01851R	2200UF 16V AL. ELECTROLYTIC CAPACITOR	CV01	AD00629R	CEC100M16-EWMT 105
C938	AL01871R	100UF 50V ALUMINIUM ELECTROLYT	CV02	AD00658R	CAP.CHIP-ELECTRO 100UF 16V
C939	AL01858R	1000UF 25V AL. ELECTROLYTIC CAPACITOR	CV03	AD00658R	CAP.CHIP-ELECTRO 100UF 16V
C940	0893174R	CAP 1608CHIP 820PFJSL 50V TAPE	CV04	AD00658R	CAP.CHIP-ELECTRO 100UF 16V
C941	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CV05	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C944	0893044R	CAP2125CHIP 10000PFKB 50V TAPE	CV06	AD00658R	CAP.CHIP-ELECTRO 100UF 16V
C945	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CV07	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)
C946	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V	CV08	AD00629R	CEC100M16-EWMT 105
C947	AL01857R	470UF 25V AL. ELECTROLYTIC CAPACITOR	CV09	0893118R	CAP 1608CHIP 27PFJCH 50V TAPE
C948	0893023R	CAP 2125 CHIP 47000PF-K B 25V	CV10	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
C949	0893023R	CAP 2125 CHIP 47000PF-K B 25V	CV11	0893115R	CAP 1608CHIP 15PFJCH 50V TAPE
C950	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	CV12	AA01101R	CERAMIC CAPACITOR(1UF 10V-F)
C951	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	CV13	AD00629R	CEC100M16-EWMT 105
C952	0893042R	CAP 2125CHIP 6800PFKB 50V TAPE	CV14	0893111R	CAP 1608CHIP 8PFCCH 50V TAPE
C954	0893042R	CAP 2125CHIP 6800PFKB 50V TAPE	CV15	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)
C955	AL01833R	1000UF 6.3V AL. ELECTROLYTIC CAPACITOR	CV16	0893222R	CAP 1608CHIP10000PFKB 50V TAPE
C956	AL01857R	470UF 25V AL. ELECTROLYTIC CAPACITOR	CV17	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)
C958	AA01814R	CCC104K25-B-16CT	CV18	0893117R	CAP 1608CHIP 22PFJCH 50V TAPE
C959	0800303R	CAP.-ELECTRO. 22UF-M 50V	CV19	0893114R	CAP 1608CHIP 12PFJCH 50V TAPE

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
CV20	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	CW07	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)
CV21	0893117R	CAP 1608CHIP 22PFJCH 50V TAPE	CW08	0893213R	CAP1608CHIP 2200PFKB 50V TAPE
CV22	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	CW09	AD00648R	CEC1R0M50-EWMT 105
CV23	0893121R	CAP 1608CHIP 39PFJCH 50V TAPE	CW11	AA01802R	CCC103K50-B-16CTMCH18
CV24	AD00629R	CEC100M16-EWMT 105	CW12	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)
CV25	AA01136R	CERAMIC CAPACITOR(0.47UF 6.3V)	CW13	AD00648R	CEC1R0M50-EWMT 105
CV26	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	CW14	AA01802R	CCC103K50-B-16CTMCH18
CV27	0893114R	CAP 1608CHIP 12PFJCH 50V TAPE	CW15	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
CV28	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	CW16	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
CV29	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	CW17	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)
CV30	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	CW18	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)
CV31	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	CW27	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
CV32	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	CW29	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)
CV33	AA00964R	CERAMIC CAPACITOR(2.2UF 6.3V)	CW31	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV34	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	CW32	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV35	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	CW33	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV37	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	CW34	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV38	AA00964R	CERAMIC CAPACITOR(2.2UF 6.3V)	CW35	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV40	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	CW36	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV41	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	CW37	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV42	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	CW38	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV43	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	CW39	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV44	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	CW40	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV45	AD00658R	CAP.CHIP-ELECTRO 100UF 16V	CW41	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV46	AD00658R	CAP.CHIP-ELECTRO 100UF 16V	CW42	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV47	0893239R	CAP 1608CHIP 10000PFZF 50V TAPE	CW43	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV48	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	CW44	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV49	0893129R	CAP 1608CHIP 180PFJCH 50V TAPE	CW45	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV50	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	CW46	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV51	0893127R	CAP 1608CHIP 120PFJCH 50V TAPE	CW47	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV52	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	CW48	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV53	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	CW49	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV54	0893121R	CAP 1608CHIP 39PFJCH 50V TAPE	CW50	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV55	AD00658R	CAP.CHIP-ELECTRO 100UF 16V	CW51	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV56	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	CW52	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV57	AA01101R	CERAMIC CAPACITOR(1UF 10V-F)	CW53	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV58	0893135R	CAP 1608CHIP 470PFJCH 50V TAPE	CW54	AA00966R	CERAMIC CAPACITOR(4.7UF 6.3V)
CV59	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	CW55	AD00629R	CEC100M16-EWMT 105
CV60	0893213R	CAP1608CHIP 2200PFKB 50V TAPE	CW56	AD00629R	CEC100M16-EWMT 105
CV61	AD00629R	CEC100M16-EWMT 105	CX01	AD00622R	CEC470M06-EWMT 105
CV62	AA00964R	CERAMIC CAPACITOR(2.2UF 6.3V)	CX02	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
CV63	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	CX03	0893232R	CAP 1608CHIP 100000PFZF25V TAPE
CV64	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	CX11	AD00622R	CEC470M06-EWMT 105
CV66	AD00629R	CEC100M16-EWMT 105			
CV67	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)			**DIODES**
CV68	0893222R	CAP 1608CHIP10000PFKB 50V TAPE			
CV69	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	D001	CC00003R	DIODE.CHIP 1SS355
CV71	AD00658R	CAP.CHIP-ELECTRO 100UF 16V	D002	CC00003R	DIODE.CHIP 1SS355
CV72	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	D004	CC00003R	DIODE.CHIP 1SS355
CV73	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	D280	CC00971R	DIODE.CHIP DAN202KT146
CV74	AD00658R	CAP.CHIP-ELECTRO 100UF 16V	D302	CC00842R	ZENER.CHIP UDZ 30B
CV76	AD00658R	CAP.CHIP-ELECTRO 100UF 16V	D405	CC00117R	CHIP DIODE RD3.0UM(B-T)
CV77	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	D406	CC00117R	CHIP DIODE RD3.0UM(B-T)
CV78	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	D407	CC00003R	DIODE.CHIP 1SS355
CV79	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	D408	CC10721R	DIODE CHIP DA204K-TPTX
CV80	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	⚠ D901	2342061	DIODE D3SB(A)60.
CV81	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	⚠ D902	2334304M	ZENER RD30E (B3 T2/TP/TA) SI 5MA 30.51V
CV82	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	D903	2338531M	DIODE EG-01C (V) SI 0.5A
CV83	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	D905	2331795M	ZENER HZ-5 (B2 TAPE) SI 200MA 4.9V
CV84	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	D906	2337341M	DIODE 1SS270A (TP)
CV85	0800353R	CAP.-ELECTRO.470UF-M 16V	⚠ D907	CH00051	DIODE SD-S1WB(A)60B (600V)
CV86	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	⚠ D909	CH00151M	DIODE DSM1SD2(200V)TAPE
CV87	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	D910	2337341M	DIODE 1SS270A (TP)
CV88	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	D911	2337341M	DIODE 1SS270A (TP)
CV89	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	D912	2338531M	DIODE EG-01C (V) SI 0.5A
CV90	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	⚠ D930	CH00151M	DIODE DSM1SD2(200V)TAPE
CV91	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	D931	CH02771	DIODE FML-G22S
CV92	0893213R	CAP1608CHIP 2200PFKB 50V TAPE	D932	2359411	DIODE FMB-G24H
CV93	0800352R	CAP.-ELECTRO.470UF 10V	⚠ D933	CH00151M	DIODE DSM1SD2(200V)TAPE
CV95	0893213R	CAP1608CHIP 2200PFKB 50V TAPE	⚠ D934	2339782R	DIODE.CHIP DAN202UT106(80V)
CV96	0800352R	CAP.-ELECTRO.470UF 10V	D936	CC00003R	DIODE.CHIP 1SS355
CV97	0800353R	CAP.-ELECTRO.470UF-M 16V	D937	CC00142R	CHIP DIODE RD5.1UM(B2-T)
CV98	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	D938	CC00142R	CHIP DIODE RD5.1UM(B2-T)
CV99	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	D940	2323782R	THYRISTOR 03P2M
CW00	0893114R	CAP 1608CHIP 12PFJCH 50V TAPE	D944	CC00003R	DIODE.CHIP 1SS355
CW01	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	⚠ D946	CH00151M	DIODE DSM1SD2(200V)TAPE
CW02	AA01143R	CERAMIC CAPACITOR(0.22UF 16V-B)	⚠ D947	CH01042M	DIODE RK34 (40V)
CW03	0893213R	CAP1608CHIP 2200PFKB 50V TAPE	D948	CC00168R	CHIP DIODE RD9.0UM(B2-T)
CW04	0893114R	CAP 1608CHIP 12PFJCH 50V TAPE	D949	CC00147R	CHIP DIODE RD5.6UM(B3-T)
CW06	AA01143R	CERAMIC CAPACITOR(0.22UF 16V-B)	D950	CC00142R	CHIP DIODE RD5.1UM(B2-T)

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SYMBOL NO.	PART NO.	PART DESCRIPTION
D951	CC00003R	DIODE.CHIP 1SS355
D952	CC00003R	DIODE.CHIP 1SS355
D953	CC00003R	DIODE.CHIP 1SS355
D954	CC00003R	DIODE.CHIP 1SS355
D955	CC00003R	DIODE.CHIP 1SS355
D956	2339845M	ZENER DIODE HZS6 (B2)
DA01	CC00117R	CHIP DIODE RD3.0UM(B-T)
DA02	CC00117R	CHIP DIODE RD3.0UM(B-T)
DA03	CC00117R	CHIP DIODE RD3.0UM(B-T)
DA04	CC00117R	CHIP DIODE RD3.0UM(B-T)
DA05	CC00003R	DIODE.CHIP 1SS355
DA06	CC00003R	DIODE.CHIP 1SS355
DA07	CC00003R	DIODE.CHIP 1SS355
DA08	CC00003R	DIODE.CHIP 1SS355
DA09	CC00003R	DIODE.CHIP 1SS355
DA10	CC00003R	DIODE.CHIP 1SS355
DA11	CC00823R	ZENER.CHIP UDZ 5.6B
⚠ DP01	CH00151M	DIODE DSM1SD2(200V)TAPE
DP02	CC00003R	DIODE.CHIP 1SS355
DP03	CC00117R	CHIP DIODE RD3.0UM(B-T)
DP04	CC01641R	DIODE HSU119
DP08	CC01881R	M2FM3
DP10	CC01641R	DIODE HSU119
DP11	CC00147R	CHIP DIODE RD5.6UM(B3-T)
DP12	CC00168R	CHIP DIODE RD9.0UM(B2-T)
DP13	CC00003R	DIODE.CHIP 1SS355
DP15	CC01631R	DIODE D1FS4A
DV02	CC00971R	DIODE.CHIP DAN202KT146
EP01	EF09605	CONNECTOR CO-01T-N0R0-111
⚠ F901	FN00062	FUSE UL-TSC 005A
⚠ F902	FN00404	FUSE UL TSC 2.5A N1 125V
⚠ H901	CW00352	UPM0518SA
		INTEGRATED CIRCUITS
I001	CK38994U	MICRO COMPUTER(M30626FHPFP-B)
I002	CK37052R	ANALOG MONOLITHIC IC(BD4742G)
I003	CK39652R	DIGITAL MONOLITHIC IC (BR24L32FJ-WE2)
I004	CK50121R	IC CD4053BPWR
I101	CK50391U	M306V7MG-093FP
I102	CK34761R	DIGITAL MONOLITHIC IC (SN74LV221APWR)
I103	CK37218R	MONO IC TK11150CSCL
I104	CK37216R	MONO IC TK11133CSCL
I201	CK37413U	IR BLASTER MASK S3C80F9XKN-QZ87
I202	CK39653R	DIGITAL MONOLITHIC IC (BR24L16FJ-WE2)
I203	CK50121R	IC CD4053BPWR
I204	CK37216R	MONO IC TK11133CSCL
I250	CK04681R	DIGITAL MONOLITHIC IC (DS14C232CM)
I260	CK50121R	IC CD4053BPWR
I3P1	CK37218R	MONO IC TK11150CSCL
I3P2	CK37194R	MONO IC SI-3050LSA-TL
I401	CK39891R	MM1631XJBE
I402	CK39881U	MM1630AQ
I403	CK38377R	DIGITAL MONO IC SI-3090KM
I404	CK37406R	MONO IC SI-3012KS
I501	CK50001U	AN15865A
I502	CK50001U	AN15865A
I503	CK34991R	SN74ACT14PWR TSSO
I505	CK31042R	IC TA1287FG
I506	CK31042R	IC TA1287FG
I5H1	CK50121R	IC CD4053BPWR
I5P1	CK38377R	DIGITAL MONO IC SI-3090KM
I901	CP07824U	STR-G6623A
⚠ I902	CP05431	ANALOG MONOLITHIC IC (TLP621F D4-GRL)
⚠ I903	CP05431	ANALOG MONOLITHIC IC (TLP621F D4-GRL)
I931	CK37171R	MONO IC SPI-8010A
I933	CW00361	DC-DCCONVERTER
I934	CK37218R	MONO IC TK11150CSCL
IA01	CP02601	AN5285K
IA02	CK31031R	IC BA3530FS-E2
IP01	CK39761R	ANALOG MONOLITHIC IC MD1222N
IP03	CK36271R	AD7414ART
IP04	CK37406R	MONO IC SI-3012KS
IP05	CK37141R	DIGI IC MD1422N
IV01	CK37212R	MONO IC TK11125CSCL
IV02	CK38701U	IC UPD64084GC-8EA-A
IV03	CK37053R	RESET IC BD4727G
IV04	CK07631R	DIGITAL MONOLITHIC IC (TC90A45F)
IV06	CK38102R	VIDEO SWITCH IC NJM2584AM(TE1)
IV08	CK38721R	ANALOG MONOLITHIC IC(TA1383FG)
IV09	CK38102R	VIDEO SWITCH IC NJM2584AM(TE1)
IV12	CK38721R	ANALOG MONOLITHIC IC(TA1383FG)
		COILS / FILTERS
L001	BA00894R	LBC2518 CHIP COIL 100UH
L002	BA00894R	LBC2518 CHIP COIL 100UH
L0H1	BA00894R	LBC2518 CHIP COIL 100UH
L201	BA00881R	LBC2518 CHIP COIL 1.0UH
L250	BA00894R	LBC2518 CHIP COIL 100UH
L260	BA00894R	LBC2518 CHIP COIL 100UH
L280	BA00894R	LBC2518 CHIP COIL 100UH
L302	BA00892R	LBC2518 CHIP COIL 47UH
L303	BA00887R	LBC2518 CHIP COIL 10UH
L304	BA00887R	LBC2518 CHIP COIL 10UH
L305	BH01341M	COIL FERRITE BEADS 0.8UH
L306	BH01341M	COIL FERRITE BEADS 0.8UH
L307	BH01341M	COIL FERRITE BEADS 0.8UH
L401	BA00887R	LBC2518 CHIP COIL 10UH
L402	BA00887R	LBC2518 CHIP COIL 10UH
L405	BA00894R	LBC2518 CHIP COIL 100UH
L501	BA00894R	LBC2518 CHIP COIL 100UH
L502	BA00894R	LBC2518 CHIP COIL 100UH
L505	BA00894R	LBC2518 CHIP COIL 100UH
L506	BA00894R	LBC2518 CHIP COIL 100UH
L507	BA00892R	LBC2518 CHIP COIL 47UH
L508	BA00892R	LBC2518 CHIP COIL 47UH
L511	BA00887R	LBC2518 CHIP COIL 10UH
L512	BA00887R	LBC2518 CHIP COIL 10UH
⚠ L901	BZ05742	LINE FILTER 8.0MH
⚠ L902	BZ05741	LINE FILTER 5.6M
L904	2123462M	FERRITE BEADS CORE B 2.3UH
L905	BZ01421R	COIL FERRITE BEAD BL02RN1-R62T4
L907	2125806N	FILT.COIL(LHL08 47UH)
L930	2125806N	FILT.COIL(LHL08 47UH)
L932	BA01023R	COIL 47UH 2A
L935	2123462M	FERRITE BEADS CORE B 2.3UH
LA01	BA00892R	LBC2518 CHIP COIL 47UH
LP01	BM00366R	COIL SLF12575T-100M5R4
LP02	BA00714R	3225 CHIP COIL 100UH
LP03	BA00979R	COIL 15UH 3.9A
LV01	BA00892R	LBC2518 CHIP COIL 47UH
LV02	BA00892R	LBC2518 CHIP COIL 47UH
LV03	BA00894R	LBC2518 CHIP COIL 100UH
LV04	BA00894R	LBC2518 CHIP COIL 100UH
LV05	BA00891R	LBC2518 CHIP COIL 33UH
LV06	BA00891R	LBC2518 CHIP COIL 33UH
LV07	BA00891R	LBC2518 CHIP COIL 33UH
LV08	BA00894R	LBC2518 CHIP COIL 100UH
LV09	BA00894R	LBC2518 CHIP COIL 100UH
LV10	BA00889R	LBC2518 CHIP COIL 22UH
LV12	BA00894R	LBC2518 CHIP COIL 100UH
LV13	BA00894R	LBC2518 CHIP COIL 100UH
LV15	BA00892R	LBC2518 CHIP COIL 47UH
LV16	BA00892R	LBC2518 CHIP COIL 47UH
LV17	BA00892R	LBC2518 CHIP COIL 47UH
LV18	BA00892R	LBC2518 CHIP COIL 47UH
LV19	BA00894R	LBC2518 CHIP COIL 100UH
LV20	BA00894R	LBC2518 CHIP COIL 100UH
		MISCELLANEOUS
ND931	MC00753	AVC5 HEAT SINK 45
ND931A	4520881	M3*8 SCREW WITH WASHER
ND932	MC00753	AVC5 HEAT SINK 45
ND932A	4520881	M3*8 SCREW WITH WASHER
NF901	FP00031R	FUSE HOLDER
NF902	FP00031R	FUSE HOLDER
NI901	MA01692	AVC5 POWER HEAT SINK
NI901A	4520883	3*12 SCREW WITH WASHER

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
NJ901	NA56411	AC INLET MTL AVC3	Q411	CA00461R	TRS.CHIP 2SD2114K 20V TAPE
NJ901A	4531762	SCREW 3*14 WITH WASHER	Q423	1323294R	TRS.CHIP 2SA1774 TL (R/S)
NS	9414017W	SILICONE COMPOUND(G-746)	Q424	1323293R	TRS.CHIP 2SC4617 TL (R/S)
P50FP	EA00932R	0.5MM PITCH FPC CONNECTOR FH12-50S-0.5SV	Q425	1323293R	TRS.CHIP 2SC4617 TL (R/S)
PAN	2902262	PLUG PIN SUB MINI 3P	Q427	1323293R	TRS.CHIP 2SC4617 TL (R/S)
PCONT	EA00348R	CONNECTOR CPC09PH2R0VTPH-SM3	Q501	1323293R	TRS.CHIP 2SC4617 TL (R/S)
PFAN	EA00342R	CONNECTOR CPC03PH2R0VTPH-SM3	Q502	1323293R	TRS.CHIP 2SC4617 TL (R/S)
PFH1	2959059	PLUG PH PIN POST 10P	Q503	1323293R	TRS.CHIP 2SC4617 TL (R/S)
PFH2	2902261	PLUG PIN SUB MINI 2P	Q504	1323293R	TRS.CHIP 2SC4617 TL (R/S)
PFH3	EA01249R	1.5MM PITCH 10P CONNECTOR BASE	Q505	1323293R	TRS.CHIP 2SC4617 TL (R/S)
PFP1	EA01246R	1.5MM PITCH 7P CONNECTOR BASE SM3	Q506	1323293R	TRS.CHIP 2SC4617 TL (R/S)
PFP2	EA01248R	1.5MM PITCH 9P CONNECTOR BASE SM3	Q507	1323293R	TRS.CHIP 2SC4617 TL (R/S)
PFSA	2959059	PLUG PH PIN POST 10P	Q508	1323293R	TRS.CHIP 2SC4617 TL (R/S)
PFSB	2675289	PLUG 10P	Q509	CA00621R	TRS.CHIP UMZ1N
PFV1	2959055	CONNECTOR-6P(PH)	Q510	CA00122R	TRS.CHIP 2SA1576A(R)50V TAPE
PFV2	2959055	CONNECTOR-6P(PH)	Q511	CA00122R	TRS.CHIP 2SA1576A(R)50V TAPE
PHM	EA00932R	0.5MM PITCH FPC CONNECTOR FH12-50S-0.5SV	Q512	CA00122R	TRS.CHIP 2SA1576A(R)50V TAPE
PMS1	ED01477U	23P BRIDGE CONNECTOR TWG-P23P-A1	Q513	1323293R	TRS.CHIP 2SC4617 TL (R/S)
PMS2	ED01477U	23P BRIDGE CONNECTOR TWG-P23P-A1	Q514	1323293R	TRS.CHIP 2SC4617 TL (R/S)
PRST	2902261	PLUG PIN SUB MINI 2P	Q515	CA00621R	TRS.CHIP UMZ1N
PSW	2902262	PLUG PIN SUB MINI 3P	Q516	2316244R	TRS.CHIP 2SC4081 R
PSWAV	2902262	PLUG PIN SUB MINI 3P	Q517	2316244R	TRS.CHIP 2SC4081 R
Z001	MN07281	PVC SUPPORT	Q5H1	CA00983R	TRS.CHIP DTC144EE TL
J201	ER00581	STEREO MINI JACK(EMI)	Q5N1	1323293R	TRS.CHIP 2SC4617 TL (R/S)
J202	ER00581	STEREO MINI JACK(EMI)	Q5N2	1323293R	TRS.CHIP 2SC4617 TL (R/S)
J203	EY01543	JACK PJX-YKF42-8057N	Q5N3	1323293R	TRS.CHIP 2SC4617 TL (R/S)
J401	EU01312	TERMINAL BOARD YKC21-8525	Q5T1	1323293R	TRS.CHIP 2SC4617 TL (R/S)
J402	EU01312	TERMINAL BOARD YKC21-8525	Q5T2	1323293R	TRS.CHIP 2SC4617 TL (R/S)
J403	ES00351	JACK LAP5120-0101F US9P Y/C3P	Q5T3	1323293R	TRS.CHIP 2SC4617 TL (R/S)
J404	EQ00621	JACK	Q930	2327772M	TRS.2SC3413 TAPE (B/C)
J405	EU01051	TAP PIN JACK (FRONT) 3P+S	Q931	1323293R	TRS.CHIP 2SC4617 TL (R/S)
J901	2676371	PLAG-AC INLET SK-1019	Q932	1323293R	TRS.CHIP 2SC4617 TL (R/S)
JA01	2672041	MINI HEADPHONE JACK	Q934	1323294R	TRS.CHIP 2SA1774 TL (R/S)
			Q935	CA00983R	TRS.CHIP DTC144EE TL
		TRANCISTORS	Q936	CA00983R	TRS.CHIP DTC144EE TL
			Q937	1323293R	TRS.CHIP 2SC4617 TL (R/S)
Q001	1323392	TRS.CHIP UMX1N	QA01	1323392	TRS.CHIP UMX1N
Q002	CA01301R	TRS.CHIP NDC7002N	QA02	1323392	TRS.CHIP UMX1N
Q070	1323293R	TRS.CHIP 2SC4617 TL (R/S)	QA03	1323392	TRS.CHIP UMX1N
Q0F1	CA00981R	TRS.CHIP DTC114EE TL	QA04	1323392	TRS.CHIP UMX1N
Q0K1	1323392	TRS.CHIP UMX1N	QA05	CA00983R	TRS.CHIP DTC144EE TL
Q0L1	1323392	TRS.CHIP UMX1N	QA06	CA00983R	TRS.CHIP DTC144EE TL
Q100	CA00983R	TRS.CHIP DTC144EE TL	QA07	CA00983R	TRS.CHIP DTC144EE TL
Q150	1323293R	TRS.CHIP 2SC4617 TL (R/S)	QA08	1323294R	TRS.CHIP 2SA1774 TL (R/S)
Q170	1323293R	TRS.CHIP 2SC4617 TL (R/S)	QA09	1323294R	TRS.CHIP 2SA1774 TL (R/S)
Q180	1323293R	TRS.CHIP 2SC4617 TL (R/S)	QA10	CA00621R	TRS.CHIP UMZ1N
Q201	CA00983R	TRS.CHIP DTC144EE TL	QA11	CA00621R	TRS.CHIP UMZ1N
Q202	1323294R	TRS.CHIP 2SA1774 TL (R/S)	QV01	CA00331R	TRS.CHIP IMZ1A
Q203	CF02771R	TRS. KTA1270	QV03	CA00142R	TRS.CHIP IMX2
Q204	CF02771R	TRS. KTA1270	QV05	CA00621R	TRS.CHIP UMZ1N
Q230	CA01011R	TRS.CHIP 2SK3018	QV06	CA01301R	TRS.CHIP NDC7002N
Q260	CA00983R	TRS.CHIP DTC144EE TL	QV07	CA00621R	TRS.CHIP UMZ1N
Q261	1323294R	TRS.CHIP 2SA1774 TL (R/S)	QV08	1323294R	TRS.CHIP 2SA1774 TL (R/S)
Q262	1323294R	TRS.CHIP 2SA1774 TL (R/S)	QV09	1323392	TRS.CHIP UMX1N
Q263	1323293R	TRS.CHIP 2SC4617 TL (R/S)	QV13	1323294R	TRS.CHIP 2SA1774 TL (R/S)
Q280	2316244R	TRS.CHIP 2SC4081 R	QV15	1323294R	TRS.CHIP 2SA1774 TL (R/S)
Q281	2316244R	TRS.CHIP 2SC4081 R	QV16	1323294R	TRS.CHIP 2SA1774 TL (R/S)
Q282	1323392	TRS.CHIP UMX1N	QV17	1323294R	TRS.CHIP 2SA1774 TL (R/S)
Q283	1323293R	TRS.CHIP 2SC4617 TL (R/S)	QV18	1323293R	TRS.CHIP 2SC4617 TL (R/S)
Q284	1323293R	TRS.CHIP 2SC4617 TL (R/S)	QV19	1323293R	TRS.CHIP 2SC4617 TL (R/S)
Q302	1323293R	TRS.CHIP 2SC4617 TL (R/S)	QV20	1323293R	TRS.CHIP 2SC4617 TL (R/S)
Q303	1323294R	TRS.CHIP 2SA1774 TL (R/S)	QV21	1323293R	TRS.CHIP 2SC4617 TL (R/S)
Q304	1323293R	TRS.CHIP 2SC4617 TL (R/S)	QV22	CA00142R	TRS.CHIP IMX2
Q305	1323294R	TRS.CHIP 2SA1774 TL (R/S)	QV25	CA00331R	TRS.CHIP IMZ1A
Q306	1323294R	TRS.CHIP 2SA1774 TL (R/S)	QV26	CA00621R	TRS.CHIP UMZ1N
Q308	1323392	TRS.CHIP UMX1N	QV27	CA00621R	TRS.CHIP UMZ1N
Q311	CA00983R	TRS.CHIP DTC144EE TL	QV33	2316244R	TRS.CHIP 2SC4081 R
Q313	CA00983R	TRS.CHIP DTC144EE TL	QV34	2316244R	TRS.CHIP 2SC4081 R
Q401	CA00983R	TRS.CHIP DTC144EE TL	QV35	CA00331R	TRS.CHIP IMZ1A
Q402	1323293R	TRS.CHIP 2SC4617 TL (R/S)	QV36	CA00621R	TRS.CHIP UMZ1N
Q403	1323294R	TRS.CHIP 2SA1774 TL (R/S)	QV39	2316244R	TRS.CHIP 2SC4081 R
Q405	1323294R	TRS.CHIP 2SA1774 TL (R/S)	QV40	2316244R	TRS.CHIP 2SC4081 R
Q407	1323294R	TRS.CHIP 2SA1774 TL (R/S)	QV43	2316244R	TRS.CHIP 2SC4081 R
Q408	1323294R	TRS.CHIP 2SA1774 TL (R/S)	QV44	2316244R	TRS.CHIP 2SC4081 R
Q409	CA00461R	TRS.CHIP 2SD2114K 20V TAPE	QV45	2316244R	TRS.CHIP 2SC4081 R

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
QV47	2316244R	TRS.CHIP 2SC4081 R	R070	0790051R	RES.CHIP 1/16W 10K OHM
QV48	2316244R	TRS.CHIP 2SC4081 R	R072	0790059R	RES.CHIP 1/16W 47K OHM
QV49	2316244R	TRS.CHIP 2SC4081 R	R073	0790024R	RES.CHIP 1/16W 100 OHM
QX01	1323294R	TRS.CHIP 2SA1774 TL (R/S)	R074	0790059R	RES.CHIP 1/16W 47K OHM
QX02	1323293R	TRS.CHIP 2SC4617 TL (R/S)	R075	0790024R	RES.CHIP 1/16W 100 OHM
QX03	2316244R	TRS.CHIP 2SC4081 R	R076	0790059R	RES.CHIP 1/16W 47K OHM
QX04	1323293R	TRS.CHIP 2SC4617 TL (R/S)	R077	AQ00037R	RES.CHIP 1/16W 1.0K OHM (4 R)
QX11	1323294R	TRS.CHIP 2SA1774 TL (R/S)	R078	0790024R	RES.CHIP 1/16W 100 OHM
QX12	1323293R	TRS.CHIP 2SC4617 TL (R/S)	R079	0790024R	RES.CHIP 1/16W 100 OHM
QX13	2316244R	TRS.CHIP 2SC4081 R	R080	0790024R	RES.CHIP 1/16W 100 OHM
QX14	1323293R	TRS.CHIP 2SC4617 TL (R/S)	R081	0790024R	RES.CHIP 1/16W 100 OHM
QX15	1323293R	TRS.CHIP 2SC4617 TL (R/S)	R083	AQ00037R	RES.CHIP 1/16W 1.0K OHM (4 R)
QX16	1323293R	TRS.CHIP 2SC4617 TL (R/S)	R087	0790059R	RES.CHIP 1/16W 47K OHM
QX17	1323293R	TRS.CHIP 2SC4617 TL (R/S)	R088	0790059R	RES.CHIP 1/16W 47K OHM
QX18	1323293R	TRS.CHIP 2SC4617 TL (R/S)	R089	0790059R	RES.CHIP 1/16W 47K OHM
QX19	1323293R	TRS.CHIP 2SC4617 TL (R/S)	R090	AQ00024R	RES.CHIP 1/16W 100 OHM (4 R)
QX20	1323293R	TRS.CHIP 2SC4617 TL (R/S)	R091	0790059R	RES.CHIP 1/16W 47K OHM
QX21	1323293R	TRS.CHIP 2SC4617 TL (R/S)	R092	0790059R	RES.CHIP 1/16W 47K OHM
QX22	1323293R	TRS.CHIP 2SC4617 TL (R/S)	R093	0790024R	RES.CHIP 1/16W 100 OHM
			R094	AQ00037R	RES.CHIP 1/16W 1.0K OHM (4 R)
		RESISTORS	R095	AQ00024R	RES.CHIP 1/16W 100 OHM (4 R)
			R096	AQ00024R	RES.CHIP 1/16W 100 OHM (4 R)
R001	AQ00024R	RES.CHIP 1/16W 100 OHM (4 R)	R099	0790033R	RES.CHIP 1/16W 470 OHM
R005	0790024R	RES.CHIP 1/16W 100 OHM	R0A1	0790028R	RES.CHIP 1/16W 220 OHM
R006	0790037R	RES.CHIP 1/16W 1.0K OHM	R0A2	0790044R	RES.CHIP 1/16W 3.3K OHM
R007	0790024R	RES.CHIP 1/16W 100 OHM	R0A3	0790024R	RES.CHIP 1/16W 100 OHM
R008	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R0A4	0790024R	RES.CHIP 1/16W 100 OHM
R009	0790051R	RES.CHIP 1/16W 10K OHM	R0A5	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R010	0790024R	RES.CHIP 1/16W 100 OHM	R0A6	0790046R	RES.CHIP 1/16W 4.7K OHM
R012	0790024R	RES.CHIP 1/16W 100 OHM	R0A7	0790055R	RES.CHIP 1/16W 22K OHM
R013	0790037R	RES.CHIP 1/16W 1.0K OHM	R0A8	0790046R	RES.CHIP 1/16W 4.7K OHM
R015	0790059R	RES.CHIP 1/16W 47K OHM	R0A9	0790064R	RES.CHIP 1/16W 100K OHM
R016	0790046R	RES.CHIP 1/16W 4.7K OHM	R0E1	0790027R	RES.CHIP 1/16W 180 OHM
R017	0790037R	RES.CHIP 1/16W 1.0K OHM	R0E2	0790063R	RES.CHIP 1/16W 82K OHM
R018	0790059R	RES.CHIP 1/16W 47K OHM	R0E3	0790061R	RES.CHIP 1/16W 56K OHM
R019	0790024R	RES.CHIP 1/16W 100 OHM	R0E4	0790051R	RES.CHIP 1/16W 10K OHM
R020	0790024R	RES.CHIP 1/16W 100 OHM	R0F1	0790024R	RES.CHIP 1/16W 100 OHM
R022	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R0F2	0790024R	RES.CHIP 1/16W 100 OHM
R023	0790059R	RES.CHIP 1/16W 47K OHM	R0F3	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R025	0790046R	RES.CHIP 1/16W 4.7K OHM	R0F4	0790051R	RES.CHIP 1/16W 10K OHM
R026	0790024R	RES.CHIP 1/16W 100 OHM	R0F5	0790024R	RES.CHIP 1/16W 100 OHM
R027	0790024R	RES.CHIP 1/16W 100 OHM	R0F6	0790024R	RES.CHIP 1/16W 100 OHM
R028	0790059R	RES.CHIP 1/16W 47K OHM	R0F7	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R029	0790024R	RES.CHIP 1/16W 100 OHM	R0F8	0790024R	RES.CHIP 1/16W 100 OHM
R030	0790051R	RES.CHIP 1/16W 10K OHM	R0H1	0790024R	RES.CHIP 1/16W 100 OHM
R031	0790051R	RES.CHIP 1/16W 10K OHM	R0H2	0790024R	RES.CHIP 1/16W 100 OHM
R032	0790028R	RES.CHIP 1/16W 220 OHM	R0H4	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R033	0790035R	RES.CHIP 1/16W 680 OHM	R0K1	0790042R	RES.CHIP 1/16W 2.2K OHM
R034	AQ00024R	RES.CHIP 1/16W 100 OHM (4 R)	R0K2	0790042R	RES.CHIP 1/16W 2.2K OHM
R035	0790051R	RES.CHIP 1/16W 10K OHM	R0K3	0790024R	RES.CHIP 1/16W 100 OHM
R036	0790051R	RES.CHIP 1/16W 10K OHM	R0L1	0790042R	RES.CHIP 1/16W 2.2K OHM
R037	0790051R	RES.CHIP 1/16W 10K OHM	R0L2	0790042R	RES.CHIP 1/16W 2.2K OHM
R038	0790051R	RES.CHIP 1/16W 10K OHM	R101	0790037R	RES.CHIP 1/16W 1.0K OHM
R039	AQ00024R	RES.CHIP 1/16W 100 OHM (4 R)	R102	0790037R	RES.CHIP 1/16W 1.0K OHM
R040	0790051R	RES.CHIP 1/16W 10K OHM	R103	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R043	0790037R	RES.CHIP 1/16W 1.0K OHM	R104	0790051R	RES.CHIP 1/16W 10K OHM
R044	0790037R	RES.CHIP 1/16W 1.0K OHM	R105	0790024R	RES.CHIP 1/16W 100 OHM
R045	AQ00024R	RES.CHIP 1/16W 100 OHM (4 R)	R106	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R048	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R107	0790055R	RES.CHIP 1/16W 22K OHM
R049	0790051R	RES.CHIP 1/16W 10K OHM	R108	0790037R	RES.CHIP 1/16W 1.0K OHM
R050	0790051R	RES.CHIP 1/16W 10K OHM	R110	0790024R	RES.CHIP 1/16W 100 OHM
R051	0790059R	RES.CHIP 1/16W 47K OHM	R118	0790024R	RES.CHIP 1/16W 100 OHM
R052	0790059R	RES.CHIP 1/16W 47K OHM	R119	0790024R	RES.CHIP 1/16W 100 OHM
R053	0790051R	RES.CHIP 1/16W 10K OHM	R120	0790051R	RES.CHIP 1/16W 10K OHM
R054	AQ00024R	RES.CHIP 1/16W 100 OHM (4 R)	R123	0790037R	RES.CHIP 1/16W 1.0K OHM
R058	0790046R	RES.CHIP 1/16W 4.7K OHM	R124	0790037R	RES.CHIP 1/16W 1.0K OHM
R059	0790046R	RES.CHIP 1/16W 4.7K OHM	R125	0790037R	RES.CHIP 1/16W 1.0K OHM
R060	0790051R	RES.CHIP 1/16W 10K OHM	R126	0790043R	RES.CHIP 1/16W 2.7K OHM
R062	0790051R	RES.CHIP 1/16W 10K OHM	R127	0790043R	RES.CHIP 1/16W 2.7K OHM
R063	0790037R	RES.CHIP 1/16W 1.0K OHM	R128	0790043R	RES.CHIP 1/16W 2.7K OHM
R064	AQ00024R	RES.CHIP 1/16W 100 OHM (4 R)	R129	0790024R	RES.CHIP 1/16W 100 OHM
R065	0790024R	RES.CHIP 1/16W 100 OHM	R130	0790037R	RES.CHIP 1/16W 1.0K OHM
R066	0790024R	RES.CHIP 1/16W 100 OHM	R135	0790024R	RES.CHIP 1/16W 100 OHM
R068	0790051R	RES.CHIP 1/16W 10K OHM	R136	0790024R	RES.CHIP 1/16W 100 OHM
R069	AQ00024R	RES.CHIP 1/16W 100 OHM (4 R)	R137	0790037R	RES.CHIP 1/16W 1.0K OHM

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R138	0790037R	RES.CHIP 1/16W 1.0K OHM	R268	0790057R	RES.CHIP 1/16W 33K OHM
R139	0790051R	RES.CHIP 1/16W 10K OHM	R269	0790051R	RES.CHIP 1/16W 10K OHM
R140	0790051R	RES.CHIP 1/16W 10K OHM	R270	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R141	0790051R	RES.CHIP 1/16W 10K OHM	R271	0790051R	RES.CHIP 1/16W 10K OHM
R143	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R272	0790059R	RES.CHIP 1/16W 47K OHM
R144	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R273	0790046R	RES.CHIP 1/16W 4.7K OHM
R150	0790024R	RES.CHIP 1/16W 100 OHM	R274	0790047R	RES.CHIP 1/16W 5.6K OHM
R151	0790059R	RES.CHIP 1/16W 47K OHM	R280	0790024R	RES.CHIP 1/16W 100 OHM
R152	0790047R	RES.CHIP 1/16W 5.6K OHM	R281	0790042R	RES.CHIP 1/16W 2.2K OHM
R153	0790052R	RES.CHIP 1/16W 12K OHM	R282	0790037R	RES.CHIP 1/16W 1.0K OHM
R154	0790024R	RES.CHIP 1/16W 100 OHM	R283	0790064R	RES.CHIP 1/16W 100K OHM
R155	0790047R	RES.CHIP 1/16W 5.6K OHM	R284	0790037R	RES.CHIP 1/16W 1.0K OHM
R156	0790038R	RES.CHIP 1/16W 1.2K OHM	R285	0790037R	RES.CHIP 1/16W 1.0K OHM
R157	0790041R	RES.CHIP 1/16W 1.8K OHM	R286	0790064R	RES.CHIP 1/16W 100K OHM
R158	0790031R	RES.CHIP 1/16W 330 OHM	R287	0790047R	RES.CHIP 1/16W 5.6K OHM
R159	0790031R	RES.CHIP 1/16W 330 OHM	R288	0790047R	RES.CHIP 1/16W 5.6K OHM
R170	0790033R	RES.CHIP 1/16W 470 OHM	R289	0790069R	RES.CHIP 1/16W 270K OHM
R171	0790077R	RES.CHIP 1/16W 1.0M OHM	R290	0790056R	RES.CHIP 1/16W 27K OHM
R172	0790042R	RES.CHIP 1/16W 2.2K OHM	R291	0790056R	RES.CHIP 1/16W 27K OHM
R173	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R292	0790046R	RES.CHIP 1/16W 4.7K OHM
R174	0790024R	RES.CHIP 1/16W 100 OHM	R293	0790028R	RES.CHIP 1/16W 220 OHM
R180	0790033R	RES.CHIP 1/16W 470 OHM	R294	0790037R	RES.CHIP 1/16W 1.0K OHM
R181	0790077R	RES.CHIP 1/16W 1.0M OHM	R295	0790028R	RES.CHIP 1/16W 220 OHM
R182	0790042R	RES.CHIP 1/16W 2.2K OHM	R301	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R183	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R304	0790028R	RES.CHIP 1/16W 220 OHM
R184	0790024R	RES.CHIP 1/16W 100 OHM	R305	0790028R	RES.CHIP 1/16W 220 OHM
R190	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R306	0790028R	RES.CHIP 1/16W 220 OHM
R192	0790051R	RES.CHIP 1/16W 10K OHM	R308	0790028R	RES.CHIP 1/16W 220 OHM
R193	0790051R	RES.CHIP 1/16W 10K OHM	R311	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R201	0790051R	RES.CHIP 1/16W 10K OHM	R315	0790044R	RES.CHIP 1/16W 3.3K OHM
R203	0790037R	RES.CHIP 1/16W 1.0K OHM	R318	0790051R	RES.CHIP 1/16W 10K OHM
R204	0790037R	RES.CHIP 1/16W 1.0K OHM	R319	0790044R	RES.CHIP 1/16W 3.3K OHM
R205	0790051R	RES.CHIP 1/16W 10K OHM	R321	0790051R	RES.CHIP 1/16W 10K OHM
R206	0790051R	RES.CHIP 1/16W 10K OHM	R322	0790045R	RES.CHIP 1/16W 3.9K OHM
R207	0790053R	RES.CHIP 1/16W 15K OHM	R323	0790024R	RES.CHIP 1/16W 100 OHM
R208	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R324	0790037R	RES.CHIP 1/16W 1.0K OHM
R209	0790024R	RES.CHIP 1/16W 100 OHM	R325	0790037R	RES.CHIP 1/16W 1.0K OHM
R210	0790024R	RES.CHIP 1/16W 100 OHM	R326	0790044R	RES.CHIP 1/16W 3.3K OHM
R211	0790024R	RES.CHIP 1/16W 100 OHM	R328	0790024R	RES.CHIP 1/16W 100 OHM
R213	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R329	0790024R	RES.CHIP 1/16W 100 OHM
R214	0790059R	RES.CHIP 1/16W 47K OHM	R336	0790059R	RES.CHIP 1/16W 47K OHM
R215	0790064R	RES.CHIP 1/16W 100K OHM	R339	0790059R	RES.CHIP 1/16W 47K OHM
R216	0790024R	RES.CHIP 1/16W 100 OHM	R342	0790051R	RES.CHIP 1/16W 10K OHM
R217	0790031R	RES.CHIP 1/16W 330 OHM	R343	0790051R	RES.CHIP 1/16W 10K OHM
R218	0790031R	RES.CHIP 1/16W 330 OHM	R347	0790051R	RES.CHIP 1/16W 10K OHM
R219	0790021R	RES.CHIP 1/16W 56 OHM	R349	0790051R	RES.CHIP 1/16W 10K OHM
R220	0790021R	RES.CHIP 1/16W 56 OHM	R350	0790051R	RES.CHIP 1/16W 10K OHM
R221	0790015R	RES.CHIP 1/16W 22 OHM	R353	0790051R	RES.CHIP 1/16W 10K OHM
R222	0790015R	RES.CHIP 1/16W 22 OHM	R3P1	0790024R	RES.CHIP 1/16W 100 OHM
R223	0790012R	RES.CHIP 1/16W 12 OHM	R3P2	0790051R	RES.CHIP 1/16W 10K OHM
R225	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R401	0790024R	RES.CHIP 1/16W 100 OHM
R226	0790051R	RES.CHIP 1/16W 10K OHM	R402	0790051R	RES.CHIP 1/16W 10K OHM
R227	0790012R	RES.CHIP 1/16W 12 OHM	R403	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R228	0790012R	RES.CHIP 1/16W 12 OHM	R404	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R229	0790012R	RES.CHIP 1/16W 12 OHM	R405	0790068R	RES.CHIP 1/16W 220K OHM
R230	0790051R	RES.CHIP 1/16W 10K OHM	R406	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE
R231	AQ00024R	RES.CHIP 1/16W 100 OHM (4 R)	R407	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE
R233	AQ00024R	RES.CHIP 1/16W 100 OHM (4 R)	R408	0790042R	RES.CHIP 1/16W 2.2K OHM
R235	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R409	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R237	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R410	0790024R	RES.CHIP 1/16W 100 OHM
R250	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R411	0790051R	RES.CHIP 1/16W 10K OHM
R252	0790024R	RES.CHIP 1/16W 100 OHM	R412	0790024R	RES.CHIP 1/16W 100 OHM
R253	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R413	0790024R	RES.CHIP 1/16W 100 OHM
R254	0790024R	RES.CHIP 1/16W 100 OHM	R414	0790037R	RES.CHIP 1/16W 1.0K OHM
R255	0790024R	RES.CHIP 1/16W 100 OHM	R415	0790024R	RES.CHIP 1/16W 100 OHM
R257	0790024R	RES.CHIP 1/16W 100 OHM	R416	0790024R	RES.CHIP 1/16W 100 OHM
R258	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R417	0790024R	RES.CHIP 1/16W 100 OHM
R260	0790059R	RES.CHIP 1/16W 47K OHM	R418	0790037R	RES.CHIP 1/16W 1.0K OHM
R261	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R419	0790024R	RES.CHIP 1/16W 100 OHM
R262	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R420	0790051R	RES.CHIP 1/16W 10K OHM
R263	0790024R	RES.CHIP 1/16W 100 OHM	R421	0790024R	RES.CHIP 1/16W 100 OHM
R264	0790024R	RES.CHIP 1/16W 100 OHM	R422	0790024R	RES.CHIP 1/16W 100 OHM
R265	0790024R	RES.CHIP 1/16W 100 OHM	R423	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE
R266	0790044R	RES.CHIP 1/16W 3.3K OHM	R424	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE
R267	0790037R	RES.CHIP 1/16W 1.0K OHM	R425	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R426	0790051R	RES.CHIP 1/16W 10K OHM	R4E6	0790042R	RES.CHIP 1/16W 2.2K OHM
R427	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	R4E7	0790042R	RES.CHIP 1/16W 2.2K OHM
R428	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	R4E8	0790042R	RES.CHIP 1/16W 2.2K OHM
R429	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	R4E9	0790042R	RES.CHIP 1/16W 2.2K OHM
R430	0790051R	RES.CHIP 1/16W 10K OHM	R4F0	0790042R	RES.CHIP 1/16W 2.2K OHM
R431	0790068R	RES.CHIP 1/16W 220K OHM	R4F1	0790042R	RES.CHIP 1/16W 2.2K OHM
R432	0790042R	RES.CHIP 1/16W 2.2K OHM	R4F2	0790042R	RES.CHIP 1/16W 2.2K OHM
R433	0790024R	RES.CHIP 1/16W 100 OHM	R4F3	0790042R	RES.CHIP 1/16W 2.2K OHM
R434	0790024R	RES.CHIP 1/16W 100 OHM	R4F4	0790042R	RES.CHIP 1/16W 2.2K OHM
R435	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R4F5	0790042R	RES.CHIP 1/16W 2.2K OHM
R436	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R4F6	0790042R	RES.CHIP 1/16W 2.2K OHM
R437	0790041R	RES.CHIP 1/16W 1.8K OHM	R4F7	0790042R	RES.CHIP 1/16W 2.2K OHM
R438	0790051R	RES.CHIP 1/16W 10K OHM	R4F8	0790042R	RES.CHIP 1/16W 2.2K OHM
R439	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R4F9	0790042R	RES.CHIP 1/16W 2.2K OHM
R440	0790037R	RES.CHIP 1/16W 1.0K OHM	R4G0	0790024R	RES.CHIP 1/16W 100 OHM
R441	0790041R	RES.CHIP 1/16W 1.8K OHM	R4G1	0790024R	RES.CHIP 1/16W 100 OHM
R442	0790024R	RES.CHIP 1/16W 100 OHM	R4G2	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R444	0790064R	RES.CHIP 1/16W 100K OHM	R4H0	0790024R	RES.CHIP 1/16W 100 OHM
R445	0790064R	RES.CHIP 1/16W 100K OHM	R4H1	0790059R	RES.CHIP 1/16W 47K OHM
R446	0790024R	RES.CHIP 1/16W 100 OHM	R4H2	0790055R	RES.CHIP 1/16W 22K OHM
R448	0790064R	RES.CHIP 1/16W 100K OHM	R4H3	0790051R	RES.CHIP 1/16W 10K OHM
R449	0790037R	RES.CHIP 1/16W 1.0K OHM	R4H5	0790063R	RES.CHIP 1/16W 82K OHM
R452	0790024R	RES.CHIP 1/16W 100 OHM	R4H8	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R453	0790064R	RES.CHIP 1/16W 100K OHM	R4K5	0790051R	RES.CHIP 1/16W 10K OHM
R454	0790024R	RES.CHIP 1/16W 100 OHM	R4K6	0790051R	RES.CHIP 1/16W 10K OHM
R455	0790064R	RES.CHIP 1/16W 100K OHM	R4K7	0790051R	RES.CHIP 1/16W 10K OHM
R456	AQ00163R	RES.CHIP 1/16W 68 OHM TAPE	R4K8	0790051R	RES.CHIP 1/16W 10K OHM
R457	AQ00163R	RES.CHIP 1/16W 68 OHM TAPE	R4K9	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE
R458	AQ00163R	RES.CHIP 1/16W 68 OHM TAPE	R4L1	0790024R	RES.CHIP 1/16W 100 OHM
R459	0790034R	RES.CHIP 1/16W 560 OHM	R4L2	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R460	0790024R	RES.CHIP 1/16W 100 OHM	R4L8	0790024R	RES.CHIP 1/16W 100 OHM
R461	0790024R	RES.CHIP 1/16W 100 OHM	R4M0	0790034R	RES.CHIP 1/16W 560 OHM
R462	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	R4M1	0790024R	RES.CHIP 1/16W 100 OHM
R463	0790028R	RES.CHIP 1/16W 220 OHM	R4M5	0790041R	RES.CHIP 1/16W 1.8K OHM
R464	0790028R	RES.CHIP 1/16W 220 OHM	R4M6	0790035R	RES.CHIP 1/16W 680 OHM
R465	0790037R	RES.CHIP 1/16W 1.0K OHM	R4M7	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R466	0790024R	RES.CHIP 1/16W 100 OHM	R4M8	0790027R	RES.CHIP 1/16W 180 OHM
R467	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	R4M9	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R468	0790041R	RES.CHIP 1/16W 1.8K OHM	R4N0	0790024R	RES.CHIP 1/16W 100 OHM
R469	0790041R	RES.CHIP 1/16W 1.8K OHM	R4N1	0790035R	RES.CHIP 1/16W 680 OHM
R470	0790024R	RES.CHIP 1/16W 100 OHM	R4N3	0790035R	RES.CHIP 1/16W 680 OHM
R472	0790024R	RES.CHIP 1/16W 100 OHM	R4N4	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R474	0790024R	RES.CHIP 1/16W 100 OHM	R4N5	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R475	0790024R	RES.CHIP 1/16W 100 OHM	R4P1	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R476	0790024R	RES.CHIP 1/16W 100 OHM	R4P2	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R477	0790024R	RES.CHIP 1/16W 100 OHM	R4P3	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R478	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	R4P4	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R479	0790024R	RES.CHIP 1/16W 100 OHM	R501	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R480	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	R502	0790024R	RES.CHIP 1/16W 100 OHM
R481	0790024R	RES.CHIP 1/16W 100 OHM	R503	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R482	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	R504	0790024R	RES.CHIP 1/16W 100 OHM
R483	0790063R	RES.CHIP 1/16W 82K OHM	R505	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R484	0790024R	RES.CHIP 1/16W 100 OHM	R506	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R485	0790063R	RES.CHIP 1/16W 82K OHM	R507	0790024R	RES.CHIP 1/16W 100 OHM
R486	0790024R	RES.CHIP 1/16W 100 OHM	R508	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R487	0790024R	RES.CHIP 1/16W 100 OHM	R509	0790024R	RES.CHIP 1/16W 100 OHM
R488	0790024R	RES.CHIP 1/16W 100 OHM	R510	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R489	0790024R	RES.CHIP 1/16W 100 OHM	R515	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R490	0790024R	RES.CHIP 1/16W 100 OHM	R516	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R491	0790024R	RES.CHIP 1/16W 100 OHM	R517	0790037R	RES.CHIP 1/16W 1.0K OHM
R495	0790046R	RES.CHIP 1/16W 4.7K OHM	R518	0790024R	RES.CHIP 1/16W 100 OHM
R496	0790046R	RES.CHIP 1/16W 4.7K OHM	R519	0790037R	RES.CHIP 1/16W 1.0K OHM
R4A2	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	R520	0790046R	RES.CHIP 1/16W 4.7K OHM
R4A3	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	R521	0790024R	RES.CHIP 1/16W 100 OHM
R4A6	0790037R	RES.CHIP 1/16W 1.0K OHM	R522	0790024R	RES.CHIP 1/16W 100 OHM
R4A7	0790037R	RES.CHIP 1/16W 1.0K OHM	R523	AQ00244R	RES.CHIP 1/16W 75K OHM TAPE
R4A8	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	R524	0790029R	RES.CHIP 1/16W 270 OHM
R4C8	0790042R	RES.CHIP 1/16W 2.2K OHM	R525	0790024R	RES.CHIP 1/16W 100 OHM
R4C9	0790042R	RES.CHIP 1/16W 2.2K OHM	R526	0790024R	RES.CHIP 1/16W 100 OHM
R4E0	0790042R	RES.CHIP 1/16W 2.2K OHM	R527	0790034R	RES.CHIP 1/16W 560 OHM
R4E1	0790042R	RES.CHIP 1/16W 2.2K OHM	R528	0790034R	RES.CHIP 1/16W 560 OHM
R4E2	0790042R	RES.CHIP 1/16W 2.2K OHM	R529	0790029R	RES.CHIP 1/16W 270 OHM
R4E3	0790042R	RES.CHIP 1/16W 2.2K OHM	R533	0196153R	RES 1608 CHIP 1/16W 2.7MJ TAPE
R4E4	0790042R	RES.CHIP 1/16W 2.2K OHM	R536	0196153R	RES 1608 CHIP 1/16W 2.7MJ TAPE
R4E5	0790042R	RES.CHIP 1/16W 2.2K OHM	R538	0790024R	RES.CHIP 1/16W 100 OHM

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R539	0790024R	RES.CHIP 1/16W 100 OHM	R5K2	AQ00201R	RES.CHIP 1/16W 1.8K OHM TAPE
R540	0790024R	RES.CHIP 1/16W 100 OHM	R5K3	AQ00218R	RES.CHIP 1/16W 8.2K OHM TAPE
R541	0790024R	RES.CHIP 1/16W 100 OHM	R5K5	0790041R	RES.CHIP 1/16W 1.8K OHM
R542	0790024R	RES.CHIP 1/16W 100 OHM	R5K6	0790041R	RES.CHIP 1/16W 1.8K OHM
R543	0790024R	RES.CHIP 1/16W 100 OHM	R5K7	0790051R	RES.CHIP 1/16W 10K OHM
R544	0790024R	RES.CHIP 1/16W 100 OHM	R5K8	0196089R	RES.-1608CHIP 1/16W 7.5K-J TAPE
R549	0790037R	RES.CHIP 1/16W 1.0K OHM	R5L2	AQ00201R	RES.CHIP 1/16W 1.8K OHM TAPE
R550	0790024R	RES.CHIP 1/16W 100 OHM	R5L3	AQ00218R	RES.CHIP 1/16W 8.2K OHM TAPE
R551	0790037R	RES.CHIP 1/16W 1.0K OHM	R5L5	0790041R	RES.CHIP 1/16W 1.8K OHM
R552	0790046R	RES.CHIP 1/16W 4.7K OHM	R5L6	0790041R	RES.CHIP 1/16W 1.8K OHM
R553	0790024R	RES.CHIP 1/16W 100 OHM	R5N1	0790024R	RES.CHIP 1/16W 100 OHM
R554	0790024R	RES.CHIP 1/16W 100 OHM	R5N3	0790043R	RES.CHIP 1/16W 2.7K OHM
R555	0790029R	RES.CHIP 1/16W 270 OHM	R5N4	0790024R	RES.CHIP 1/16W 100 OHM
R556	0790024R	RES.CHIP 1/16W 100 OHM	R5N6	0790043R	RES.CHIP 1/16W 2.7K OHM
R557	0790024R	RES.CHIP 1/16W 100 OHM	R5N7	AQ00207R	RES.CHIP 1/16W 3.3K OHM TAPE
R558	AQ00244R	RES.CHIP 1/16W 75K OHM TAPE	R5N8	AQ00218R	RES.CHIP 1/16W 8.2K OHM TAPE
R559	0790034R	RES.CHIP 1/16W 560 OHM	R5N9	0790043R	RES.CHIP 1/16W 2.7K OHM
R560	0790034R	RES.CHIP 1/16W 560 OHM	R5P0	0790024R	RES.CHIP 1/16W 100 OHM
R561	0790029R	RES.CHIP 1/16W 270 OHM	R5P4	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R562	0790024R	RES.CHIP 1/16W 100 OHM	R5T1	0790024R	RES.CHIP 1/16W 100 OHM
R563	0790024R	RES.CHIP 1/16W 100 OHM	R5T3	0790043R	RES.CHIP 1/16W 2.7K OHM
R564	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R5T4	0790024R	RES.CHIP 1/16W 100 OHM
R566	0790024R	RES.CHIP 1/16W 100 OHM	R5T6	0790043R	RES.CHIP 1/16W 2.7K OHM
R567	0790024R	RES.CHIP 1/16W 100 OHM	R5T7	AQ00207R	RES.CHIP 1/16W 3.3K OHM TAPE
R570	0790024R	RES.CHIP 1/16W 100 OHM	R5T8	AQ00218R	RES.CHIP 1/16W 8.2K OHM TAPE
R571	0790024R	RES.CHIP 1/16W 100 OHM	R5T9	0790043R	RES.CHIP 1/16W 2.7K OHM
R572	0790024R	RES.CHIP 1/16W 100 OHM	⚠ R901	AT03672M	RES.MTL GRAZD FLM 1/2W 3.3M
R575	0790024R	RES.CHIP 1/16W 100 OHM	R903	0179536M	RES.-METAL GRAZED FILM 1M J TAPE
R576	AQ00185R	RES.CHIP 1/16W 470 OHM TAPE	R904	AT03464S	METAL OX. 22K OHM 2W
R577	AQ00187R	RES.CHIP 1/16W 560 OHM TAPE	R905	0100037M	RES.-CARBON FLM 1/8W 68-JB
R578	0790046R	RES.CHIP 1/16W 4.7K OHM	R906	0147612	RES.-WIRE WOUND 7W 1.2-K
R579	AQ00207R	RES.CHIP 1/16W 3.3K OHM TAPE	R907	0790035R	RES.CHIP 1/16W 680 OHM
R580	AQ00212R	RES.CHIP 1/16W 4.7K OHM TAPE	R908	0148016	RES.WIRE WOUND 2W 0.22 OHM CEMENTED
R581	0790048R	RES.CHIP 1/16W 6.8K OHM	R909	0790044R	RES.CHIP 1/16W 3.3K OHM
R582	0790044R	RES.CHIP 1/16W 3.3K OHM	R910	0188157M	RES.-CARBON FLM 100K-J 1/2W
R583	0790042R	RES.CHIP 1/16W 2.2K OHM	R913	AT02525R	METAL OXIDE RESISTOR (100OHM 3W)
R584	0790042R	RES.CHIP 1/16W 2.2K OHM	R915	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R585	0790042R	RES.CHIP 1/16W 2.2K OHM	R916	0100069M	RES.-CARBON FLM 1/8W 1.5K-JB
R586	0790024R	RES.CHIP 1/16W 100 OHM	R931	0188091M	RDL-1R0J1-02LT
R587	0790024R	RES.CHIP 1/16W 100 OHM	R933	0188091M	RDL-1R0J1-02LT
R589	0790024R	RES.CHIP 1/16W 100 OHM	R934	0790037R	RES.CHIP 1/16W 1.0K OHM
R590	0790024R	RES.CHIP 1/16W 100 OHM	R935	0790046R	RES.CHIP 1/16W 4.7K OHM
R592	0790024R	RES.CHIP 1/16W 100 OHM	R937	0790051R	RES.CHIP 1/16W 10K OHM
R593	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R938	0188091M	RDL-1R0J1-02LT
R594	0790021R	RES.CHIP 1/16W 56 OHM	R939	0790037R	RES.CHIP 1/16W 1.0K OHM
R595	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R940	0100107M	RES.-CARBON FLM 1/8W 56K-JB
R596	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R941	0790049R	RES.CHIP 1/16W 8.2K OHM
R597	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R944	0790037R	RES.CHIP 1/16W 1.0K OHM
R598	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R946	0790037R	RES.CHIP 1/16W 1.0K OHM
R5A0	0790024R	RES.CHIP 1/16W 100 OHM	R947	0790042R	RES.CHIP 1/16W 2.2K OHM
R5A1	0790024R	RES.CHIP 1/16W 100 OHM	R948	0790051R	RES.CHIP 1/16W 10K OHM
R5A2	0790024R	RES.CHIP 1/16W 100 OHM	R949	0790019R	RES.CHIP 1/16W 47 OHM
R5A5	0790024R	RES.CHIP 1/16W 100 OHM	R950	AQ00203R	RES.CHIP 1/16W 2.2K OHM TAPE
R5A6	AQ00185R	RES.CHIP 1/16W 470 OHM TAPE	R951	AQ00185R	RES.CHIP 1/16W 470 OHM TAPE
R5A7	AQ00187R	RES.CHIP 1/16W 560 OHM TAPE	R952	0790064R	RES.CHIP 1/16W 100K OHM
R5A8	0790046R	RES.CHIP 1/16W 4.7K OHM	R954	0790037R	RES.CHIP 1/16W 1.0K OHM
R5A9	AQ00207R	RES.CHIP 1/16W 3.3K OHM TAPE	R955	0790032R	RES.CHIP 1/16W 390 OHM
R5C0	AQ00212R	RES.CHIP 1/16W 4.7K OHM TAPE	R956	0790055R	RES.CHIP 1/16W 22K OHM
R5C1	0790048R	RES.CHIP 1/16W 6.8K OHM	R957	0790051R	RES.CHIP 1/16W 10K OHM
R5C2	0790044R	RES.CHIP 1/16W 3.3K OHM	R958	0790037R	RES.CHIP 1/16W 1.0K OHM
R5C3	0196153R	RES 1608 CHIP 1/16W 2.7MJ TAPE	R959	0790037R	RES.CHIP 1/16W 1.0K OHM
R5E0	0790021R	RES.CHIP 1/16W 56 OHM	R960	0790051R	RES.CHIP 1/16W 10K OHM
R5E1	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R961	0790051R	RES.CHIP 1/16W 10K OHM
R5E2	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	R962	0790051R	RES.CHIP 1/16W 10K OHM
R5E5	0196153R	RES 1608 CHIP 1/16W 2.7MJ TAPE	R963	0790046R	RES.CHIP 1/16W 4.7K OHM
R5E8	0196153R	RES 1608 CHIP 1/16W 2.7MJ TAPE	R964	0790037R	RES.CHIP 1/16W 1.0K OHM
R5F8	0790051R	RES.CHIP 1/16W 10K OHM	R967	AQ00209R	RES.CHIP 1/16W 3.9K OHM TAPE
R5F9	0196089R	RES.-1608CHIP 1/16W 7.5K-J TAPE	R968	AQ00206R	RES.CHIP 1/16W 3.0K OHM TAPE
R5H2	0790024R	RES.CHIP 1/16W 100 OHM	R982	0790051R	RES.CHIP 1/16W 10K OHM
R5H4	0790024R	RES.CHIP 1/16W 100 OHM	R985	0790037R	RES.CHIP 1/16W 1.0K OHM
R5H5	0790037R	RES.CHIP 1/16W 1.0K OHM	R987	0790051R	RES.CHIP 1/16W 10K OHM
R5H6	0790024R	RES.CHIP 1/16W 100 OHM	R988	0790037R	RES.CHIP 1/16W 1.0K OHM
R5H7	0790037R	RES.CHIP 1/16W 1.0K OHM	R989	0790051R	RES.CHIP 1/16W 10K OHM
R5H8	0790059R	RES.CHIP 1/16W 47K OHM	R996	0188125M	RES.-CARBON FLM 390-J 1/2W
R5H9	AQ00024R	RES.CHIP 1/16W 100 OHM (4 R)	R997	0790053R	RES.CHIP 1/16W 15K OHM

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R998	0790058R	RES.CHIP 1/16W 39K OHM	RP33	0790024R	RES.CHIP 1/16W 100 OHM
R999	0790053R	RES.CHIP 1/16W 15K OHM	RP34	0790051R	RES.CHIP 1/16W 10K OHM
RA01	0790024R	RES.CHIP 1/16W 100 OHM	RP35	0790024R	RES.CHIP 1/16W 100 OHM
RA02	0790024R	RES.CHIP 1/16W 100 OHM	RP37	0790064R	RES.CHIP 1/16W 100K OHM
RA03	0790043R	RES.CHIP 1/16W 2.7K OHM	RP38	0790077R	RES.CHIP 1/16W 1.0M OHM
RA04	0790043R	RES.CHIP 1/16W 2.7K OHM	RP39	0790018R	RES.CHIP 1/16W 39 OHM
RA05	0790028R	RES.CHIP 1/16W 220 OHM	RP40	0790037R	RES.CHIP 1/16W 1.0K OHM
RA06	0790028R	RES.CHIP 1/16W 220 OHM	RP41	0790037R	RES.CHIP 1/16W 1.0K OHM
RA07	0790063R	RES.CHIP 1/16W 82K OHM	RP42	0790073R	RES.CHIP 1/16W 470K OHM
RA08	0790063R	RES.CHIP 1/16W 82K OHM	RP43	0790051R	RES.CHIP 1/16W 10K OHM
RA09	0790037R	RES.CHIP 1/16W 1.0K OHM	RP45	AT01532S	METAL FILM RESISTOR(0.12OHM 1/2W)
RA10	0790037R	RES.CHIP 1/16W 1.0K OHM	RP46	0195925R	RES 2125 CHIP 1/16W 10K-J TAPE
RA11	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	RP47	AT01533S	METAL FILM RESISTOR(0.15OHM1/2
RA12	0790051R	RES.CHIP 1/16W 10K OHM	RP48	AT01533S	METAL FILM RESISTOR(0.15OHM1/2
RA13	0790037R	RES.CHIP 1/16W 1.0K OHM	RP49	0195875R	RES 2125 CHIP 1/16W 100-J TAPE
RA14	0790037R	RES.CHIP 1/16W 1.0K OHM	RP50	0195875R	RES 2125 CHIP 1/16W 100-J TAPE
RA16	0790037R	RES.CHIP 1/16W 1.0K OHM	RP51	0195900R	RES 2125 CHIP 1/16W 1.0K-J TAPE
RA17	0790037R	RES.CHIP 1/16W 1.0K OHM	RP52	0195900R	RES 2125 CHIP 1/16W 1.0K-J TAPE
RA18	0790063R	RES.CHIP 1/16W 82K OHM	RP53	0196893R	RES 2125CHIP 1/16W1.6K-F TAPE
RA19	0790063R	RES.CHIP 1/16W 82K OHM	RP54	0196895R	RES 2125CHIP 1/16W2.0K-F TAPE
RA20	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	RP57	0790061R	RES.CHIP 1/16W 56K OHM
RA21	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	RP58	0790055R	RES.CHIP 1/16W 22K OHM
RA22	0790028R	RES.CHIP 1/16W 220 OHM	RP61	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
RA23	0790028R	RES.CHIP 1/16W 220 OHM	RV01	0790059R	RES.CHIP 1/16W 47K OHM
RA24	0790043R	RES.CHIP 1/16W 2.7K OHM	RV02	0790058R	RES.CHIP 1/16W 39K OHM
RA25	0790043R	RES.CHIP 1/16W 2.7K OHM	RV03	0790024R	RES.CHIP 1/16W 100 OHM
RA26	0790024R	RES.CHIP 1/16W 100 OHM	RV04	0790035R	RES.CHIP 1/16W 680 OHM
RA27	0790024R	RES.CHIP 1/16W 100 OHM	RV05	AQ00194R	RES.CHIP 1/16W 1.0K OHM TAPE
RA28	AT03669M	RES.MTL GRAZD FLM 1/2W 2.2M	RV06	0790051R	RES.CHIP 1/16W 10K OHM
RA31	0790046R	RES.CHIP 1/16W 4.7K OHM	RV07	AQ00194R	RES.CHIP 1/16W 1.0K OHM TAPE
RA32	0790044R	RES.CHIP 1/16W 3.3K OHM	RV08	AQ00185R	RES.CHIP 1/16W 470 OHM TAPE
RA33	0790048R	RES.CHIP 1/16W 6.8K OHM	RV09	0790024R	RES.CHIP 1/16W 100 OHM
RA34	0790047R	RES.CHIP 1/16W 5.6K OHM	RV10	0790024R	RES.CHIP 1/16W 100 OHM
RA35	0790042R	RES.CHIP 1/16W 2.2K OHM	RV11	0790024R	RES.CHIP 1/16W 100 OHM
RA36	0790037R	RES.CHIP 1/16W 1.0K OHM	RV12	0790059R	RES.CHIP 1/16W 47K OHM
RA37	0790061R	RES.CHIP 1/16W 56K OHM	RV13	0790058R	RES.CHIP 1/16W 39K OHM
RA38	0790051R	RES.CHIP 1/16W 10K OHM	RV14	0790024R	RES.CHIP 1/16W 100 OHM
RA39	0790061R	RES.CHIP 1/16W 56K OHM	RV15	0790046R	RES.CHIP 1/16W 4.7K OHM
RA41	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	RV16	AQ00191R	RES.CHIP 1/16W 750 OHM TAPE
RA42	AQ00022R	RES.CHIP 1/16W 68 OHM (4 R)	RV17	0790042R	RES.CHIP 1/16W 2.2K OHM
RA43	0790037R	RES.CHIP 1/16W 1.0K OHM	RV18	0790035R	RES.CHIP 1/16W 680 OHM
RA44	0790047R	RES.CHIP 1/16W 5.6K OHM	RV19	AQ00194R	RES.CHIP 1/16W 1.0K OHM TAPE
RA45	0790047R	RES.CHIP 1/16W 5.6K OHM	RV20	AQ00194R	RES.CHIP 1/16W 1.0K OHM TAPE
RA46	AQ00022R	RES.CHIP 1/16W 68 OHM (4 R)	RV21	AQ00194R	RES.CHIP 1/16W 1.0K OHM TAPE
RA47	0790024R	RES.CHIP 1/16W 100 OHM	RV22	AQ00191R	RES.CHIP 1/16W 750 OHM TAPE
RA48	0790037R	RES.CHIP 1/16W 1.0K OHM	RV23	0790024R	RES.CHIP 1/16W 100 OHM
RA49	0790047R	RES.CHIP 1/16W 5.6K OHM	RV24	0790024R	RES.CHIP 1/16W 100 OHM
RA50	0790066R	RES.CHIP 1/16W 150K OHM	RV25	0790024R	RES.CHIP 1/16W 100 OHM
RA51	0790066R	RES.CHIP 1/16W 150K OHM	RV26	0790043R	RES.CHIP 1/16W 2.7K OHM
RA52	0790039R	RES.CHIP 1/16W 1.5K OHM	RV27	0790028R	RES.CHIP 1/16W 220 OHM
RA53	0790034R	RES.CHIP 1/16W 560 OHM	RV30	AQ00174R	RES.CHIP 1/16W 180 OHM TAPE
RA54	0790024R	RES.CHIP 1/16W 100 OHM	RV31	0790037R	RES.CHIP 1/16W 1.0K OHM
RA55	0790034R	RES.CHIP 1/16W 560 OHM	RV32	AQ00192R	RES.CHIP 1/16W 820 OHM TAPE
RA56	0790039R	RES.CHIP 1/16W 1.5K OHM	RV33	0790051R	RES.CHIP 1/16W 10K OHM
RA57	0790034R	RES.CHIP 1/16W 560 OHM	RV34	0790024R	RES.CHIP 1/16W 100 OHM
RA58	0790024R	RES.CHIP 1/16W 100 OHM	RV35	0790051R	RES.CHIP 1/16W 10K OHM
RA59	0790034R	RES.CHIP 1/16W 560 OHM	RV36	0790041R	RES.CHIP 1/16W 1.8K OHM
RA60	AQ00024R	RES.CHIP 1/16W 100 OHM (4 R)	RV37	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
RA61	AQ00024R	RES.CHIP 1/16W 100 OHM (4 R)	RV38	0790024R	RES.CHIP 1/16W 100 OHM
RA62	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	RV39	0790061R	RES.CHIP 1/16W 56K OHM
RA63	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	RV40	0790024R	RES.CHIP 1/16W 100 OHM
RP02	0790052R	RES.CHIP 1/16W 12K OHM	RV41	0790055R	RES.CHIP 1/16W 22K OHM
RP03	0790051R	RES.CHIP 1/16W 10K OHM	RV42	0790052R	RES.CHIP 1/16W 12K OHM
RP05	0790064R	RES.CHIP 1/16W 100K OHM	RV43	0790024R	RES.CHIP 1/16W 100 OHM
RP06	0790077R	RES.CHIP 1/16W 1.0M OHM	RV44	0790036R	RES.CHIP 1/16W 820 OHM
RP12	0790018R	RES.CHIP 1/16W 39 OHM	RV45	0790041R	RES.CHIP 1/16W 1.8K OHM
RP16	0195925R	RES 2125 CHIP 1/16W 10K-J TAPE	RV47	0790011R	RES.CHIP 1/16W 10 OHM
RP22	0195250R	RES 2125 CHIP JAMPER WIRE	RV48	0790011R	RES.CHIP 1/16W 10 OHM
RP25	AT01532S	METAL FILM RESISTOR(0.12OHM 1/2W)	RV49	0790024R	RES.CHIP 1/16W 100 OHM
RP26	AT01532S	METAL FILM RESISTOR(0.12OHM 1/2W)	RV50	0790024R	RES.CHIP 1/16W 100 OHM
RP27	0195250R	RES 2125 CHIP JAMPER WIRE	RV52	0790042R	RES.CHIP 1/16W 2.2K OHM
RP29	0196888R	RES 2125CHIP 1/10W1.0K-F TAPE	RV53	AQ00187R	RES.CHIP 1/16W 560 OHM TAPE
RP30	0196896R	RES 2125CHIP 1/16W2.2K-F TAPE	RV54	0790044R	RES.CHIP 1/16W 3.3K OHM
RP31	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	RV55	0790042R	RES.CHIP 1/16W 2.2K OHM
RP32	0790024R	RES.CHIP 1/16W 100 OHM	RV56	0790032R	RES.CHIP 1/16W 390 OHM

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
RV57	0790032R	RES.CHIP 1/16W 390 OHM	RW35	0790037R	RES.CHIP 1/16W 1.0K OHM
RV58	0790028R	RES.CHIP 1/16W 220 OHM	RW36	0790037R	RES.CHIP 1/16W 1.0K OHM
RV59	AQ00187R	RES.CHIP 1/16W 560 OHM TAPE	RW37	0790024R	RES.CHIP 1/16W 100 OHM
RV60	0790034R	RES.CHIP 1/16W 560 OHM	RW38	0790024R	RES.CHIP 1/16W 100 OHM
RV61	0790024R	RES.CHIP 1/16W 100 OHM	RW39	0790024R	RES.CHIP 1/16W 100 OHM
RV62	0790024R	RES.CHIP 1/16W 100 OHM	RW40	0790024R	RES.CHIP 1/16W 100 OHM
RV63	AQ00214R	RES.CHIP 1/16W 5.6K OHM	RW41	0790024R	RES.CHIP 1/16W 100 OHM
RV64	0790064R	RES.CHIP 1/16W 100K OHM	RW42	0790024R	RES.CHIP 1/16W 100 OHM
RV65	0790059R	RES.CHIP 1/16W 47K OHM	RW43	0790024R	RES.CHIP 1/16W 100 OHM
RV66	0790068R	RES.CHIP 1/16W 220K OHM	RW44	0790024R	RES.CHIP 1/16W 100 OHM
RV67	AQ00214R	RES.CHIP 1/16W 5.6K OHM	RW45	0790024R	RES.CHIP 1/16W 100 OHM
RV68	0790053R	RES.CHIP 1/16W 15K OHM	RW46	0790024R	RES.CHIP 1/16W 100 OHM
RV69	0790052R	RES.CHIP 1/16W 12K OHM	RW47	0790024R	RES.CHIP 1/16W 100 OHM
RV70	0790043R	RES.CHIP 1/16W 2.7K OHM	RW48	0790037R	RES.CHIP 1/16W 1.0K OHM
RV71	0790044R	RES.CHIP 1/16W 3.3K OHM	RW49	0790024R	RES.CHIP 1/16W 100 OHM
RV72	0790058R	RES.CHIP 1/16W 39K OHM	RW50	0790024R	RES.CHIP 1/16W 100 OHM
RV73	0790059R	RES.CHIP 1/16W 47K OHM	RW51	0790024R	RES.CHIP 1/16W 100 OHM
RV74	0790024R	RES.CHIP 1/16W 100 OHM	RW52	0790024R	RES.CHIP 1/16W 100 OHM
RV75	AQ00187R	RES.CHIP 1/16W 560 OHM TAPE	RW53	0790024R	RES.CHIP 1/16W 100 OHM
RV76	AQ00187R	RES.CHIP 1/16W 560 OHM TAPE	RW54	0790042R	RES.CHIP 1/16W 2.2K OHM
RV77	0790024R	RES.CHIP 1/16W 100 OHM	RW55	0790024R	RES.CHIP 1/16W 100 OHM
RV78	0790058R	RES.CHIP 1/16W 39K OHM	RW56	0790024R	RES.CHIP 1/16W 100 OHM
RV79	0790053R	RES.CHIP 1/16W 15K OHM	RW57	0790024R	RES.CHIP 1/16W 100 OHM
RV81	0790056R	RES.CHIP 1/16W 27K OHM	RW58	0790024R	RES.CHIP 1/16W 100 OHM
RV82	0790051R	RES.CHIP 1/16W 10K OHM	RW59	0790024R	RES.CHIP 1/16W 100 OHM
RV83	0790024R	RES.CHIP 1/16W 100 OHM	RW60	AQ00233R	RES.CHIP 1/16W 30K OHM TAPE
RV84	0790037R	RES.CHIP 1/16W 1.0K OHM	RW61	0790042R	RES.CHIP 1/16W 2.2K OHM
RV86	0790033R	RES.CHIP 1/16W 470 OHM	RW62	0790024R	RES.CHIP 1/16W 100 OHM
RV87	0790035R	RES.CHIP 1/16W 680 OHM	RW63	0790024R	RES.CHIP 1/16W 100 OHM
RV88	AQ00205R	RES.CHIP 1/16W 2.7K OHM TAPE	RW64	0790024R	RES.CHIP 1/16W 100 OHM
RV89	AQ00196R	RES.CHIP 1/16W 1.2K OHM TAPE	RW65	AQ00233R	RES.CHIP 1/16W 30K OHM TAPE
RV90	0790037R	RES.CHIP 1/16W 1.0K OHM	RW66	0790024R	RES.CHIP 1/16W 100 OHM
RV91	0790034R	RES.CHIP 1/16W 560 OHM	RW67	0790051R	RES.CHIP 1/16W 10K OHM
RV92	0790046R	RES.CHIP 1/16W 4.7K OHM	RW68	0790024R	RES.CHIP 1/16W 100 OHM
RV93	0790039R	RES.CHIP 1/16W 1.5K OHM	RW69	AQ00215R	RES.CHIP 1/16W 6.2K OHM TAPE
RV95	AQ00194R	RES.CHIP 1/16W 1.0K OHM TAPE	RW70	AQ00182R	RES.CHIP 1/16W 360 OHM TAPE
RV96	AQ00214R	RES.CHIP 1/16W 5.6K OHM	RW71	0790051R	RES.CHIP 1/16W 10K OHM
RV97	0790024R	RES.CHIP 1/16W 100 OHM	RW72	AQ00215R	RES.CHIP 1/16W 6.2K OHM TAPE
RV98	0790043R	RES.CHIP 1/16W 2.7K OHM	RW73	AQ00182R	RES.CHIP 1/16W 360 OHM TAPE
RV99	0790024R	RES.CHIP 1/16W 100 OHM	RW76	0790024R	RES.CHIP 1/16W 100 OHM
RW00	0790049R	RES.CHIP 1/16W 8.2K OHM	RW77	0790053R	RES.CHIP 1/16W 15K OHM
RW01	0790054R	RES.CHIP 1/16W 18K OHM	RW78	0790024R	RES.CHIP 1/16W 100 OHM
RW02	0790058R	RES.CHIP 1/16W 39K OHM	RW96	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
RW03	0790059R	RES.CHIP 1/16W 47K OHM	RW97	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
RW04	0790059R	RES.CHIP 1/16W 47K OHM	RW98	0790024R	RES.CHIP 1/16W 100 OHM
RW05	0790055R	RES.CHIP 1/16W 22K OHM	RW99	0790024R	RES.CHIP 1/16W 100 OHM
RW06	0790024R	RES.CHIP 1/16W 100 OHM	RX01	0790033R	RES.CHIP 1/16W 470 OHM
RW07	0790024R	RES.CHIP 1/16W 100 OHM	RX02	0790033R	RES.CHIP 1/16W 470 OHM
RW08	0790042R	RES.CHIP 1/16W 2.2K OHM	RX03	0790024R	RES.CHIP 1/16W 100 OHM
RW09	0790051R	RES.CHIP 1/16W 10K OHM	RX04	0790024R	RES.CHIP 1/16W 100 OHM
RW10	0790035R	RES.CHIP 1/16W 680 OHM	RX11	0790033R	RES.CHIP 1/16W 470 OHM
RW11	AQ00205R	RES.CHIP 1/16W 2.7K OHM TAPE	RX12	0790033R	RES.CHIP 1/16W 470 OHM
RW12	0790035R	RES.CHIP 1/16W 680 OHM	RX13	0790024R	RES.CHIP 1/16W 100 OHM
RW13	0790034R	RES.CHIP 1/16W 560 OHM	RX14	0790024R	RES.CHIP 1/16W 100 OHM
RW14	0790051R	RES.CHIP 1/16W 10K OHM	RX15	0790024R	RES.CHIP 1/16W 100 OHM
RW15	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	RX16	0790055R	RES.CHIP 1/16W 22K OHM
RW16	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	RX17	0790055R	RES.CHIP 1/16W 22K OHM
RW17	0790024R	RES.CHIP 1/16W 100 OHM	RX18	0790046R	RES.CHIP 1/16W 4.7K OHM
RW18	0790024R	RES.CHIP 1/16W 100 OHM	RX19	0790024R	RES.CHIP 1/16W 100 OHM
RW19	0790024R	RES.CHIP 1/16W 100 OHM	RX20	0790055R	RES.CHIP 1/16W 22K OHM
RW20	0790042R	RES.CHIP 1/16W 2.2K OHM	RX21	0790055R	RES.CHIP 1/16W 22K OHM
RW21	0790044R	RES.CHIP 1/16W 3.3K OHM	RX22	0790046R	RES.CHIP 1/16W 4.7K OHM
RW22	0790024R	RES.CHIP 1/16W 100 OHM	RX23	0790024R	RES.CHIP 1/16W 100 OHM
RW23	0790024R	RES.CHIP 1/16W 100 OHM	RX24	0790024R	RES.CHIP 1/16W 100 OHM
RW24	0790024R	RES.CHIP 1/16W 100 OHM	RX30	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE
RW25	0790024R	RES.CHIP 1/16W 100 OHM	RX31	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE
RW26	0790024R	RES.CHIP 1/16W 100 OHM	RX32	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE
RW27	0790037R	RES.CHIP 1/16W 1.0K OHM	RX33	0790024R	RES.CHIP 1/16W 100 OHM
RW28	0790037R	RES.CHIP 1/16W 1.0K OHM	RX34	0790024R	RES.CHIP 1/16W 100 OHM
RW29	0790037R	RES.CHIP 1/16W 1.0K OHM	RX35	0790024R	RES.CHIP 1/16W 100 OHM
RW30	0790024R	RES.CHIP 1/16W 100 OHM	RX36	0790024R	RES.CHIP 1/16W 100 OHM
RW31	0790024R	RES.CHIP 1/16W 100 OHM	RX37	0790024R	RES.CHIP 1/16W 100 OHM
RW32	0790024R	RES.CHIP 1/16W 100 OHM	RX38	0790024R	RES.CHIP 1/16W 100 OHM
RW33	0790024R	RES.CHIP 1/16W 100 OHM	RX39	0790037R	RES.CHIP 1/16W 1.0K OHM
RW34	0790024R	RES.CHIP 1/16W 100 OHM	RX40	0790037R	RES.CHIP 1/16W 1.0K OHM

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
RX41	0790037R	RES.CHIP 1/16W 1.0K OHM	C428	AA01802R	CCC103K50-B-16CTMCH18
RX42	0790037R	RES.CHIP 1/16W 1.0K OHM	C429	AD00475R	CEC010M50-EWCT
RX43	0790037R	RES.CHIP 1/16W 1.0K OHM	C430	AD00436R	CEC100M16-EWCT
RX44	0790037R	RES.CHIP 1/16W 1.0K OHM	C431	AD00436R	CEC100M16-EWCT
RX45	0790077R	RES.CHIP 1/16W 1.0M OHM	C432	0800344R	CAP.-ELECTRO. 330UF-M(SMG) 16V
RX46	0790077R	RES.CHIP 1/16W 1.0M OHM	C435	AD00436R	CEC100M16-EWCT
RX47	0790077R	RES.CHIP 1/16W 1.0M OHM	C436	AD00478R	CEC4R7M50-EWCT
RX48	0790077R	RES.CHIP 1/16W 1.0M OHM	C437	AD00478R	CEC4R7M50-EWCT
RX50	0790024R	RES.CHIP 1/16W 100 OHM	C438	0893127R	CAP 1608CHIP 120PFJCH 50V TAPE
RX51	0790037R	RES.CHIP 1/16W 1.0K OHM	C439	0893127R	CAP 1608CHIP 120PFJCH 50V TAPE
RX52	0790024R	RES.CHIP 1/16W 100 OHM	C440	0880207R	CAP.-POLYESTER 1.0UF-J 50V
RX53	0790037R	RES.CHIP 1/16W 1.0K OHM	C441	0880207R	CAP.-POLYESTER 1.0UF-J 50V
			C442	0880207R	CAP.-POLYESTER 1.0UF-J 50V
			C443	0880207R	CAP.-POLYESTER 1.0UF-J 50V
		RELAY / SWITCH	C444	0880198R	CAP.-PLOY. 0.22UF-J 50V
⚠ S901	FJ00142	RELAY ALKS329	C445	0880198R	CAP.-PLOY. 0.22UF-J 50V
SM07	2634621	SWITCH BLOCK VR	C446	AD00436R	CEC100M16-EWCT
			C447	AD00436R	CEC100M16-EWCT
		TRANSFORMER	C448	0800359R	CAP.-ELECTRO. 1000UF-M 10V
			C449	0800359R	CAP.-ELECTRO. 1000UF-M 10V
⚠ T901	BT02211	SWITCHIG TRANSFORMER	C450	0800359R	CAP.-ELECTRO. 1000UF-M 10V
			C451	0800359R	CAP.-ELECTRO. 1000UF-M 10V
		TUNERS	C452	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE
			C453	AA01814R	CCC104K25-B-16CT
U301	HC00495	FE-V0-A32FT	C454	AD00475R	CEC010M50-EWCT
U302	HC00504	FE-VO-A69FT	C455	AA01814R	CCC104K25-B-16CT
			C456	AA01814R	CCC104K25-B-16CT
		CRYSTALS	C457	AA01814R	CCC104K25-B-16CT
			C458	AD00475R	CEC010M50-EWCT
X002	BL01181R	CSCTE16M0V51-R0	C459	AA01814R	CCC104K25-B-16CT
X101	BP01311R	CSTLS16M0X	C460	AA01814R	CCC104K25-B-16CT
X201	BP01313R	CSTLS8M00G53	C461	0800353R	CAP.-ELECTRO.470UF-M 16V
X250	BK00191R	CHIP CERAMIC FILTER NFL21SP506X1C3D	C462	0800353R	CAP.-ELECTRO.470UF-M 16V
X251	BK00191R	CHIP CERAMIC FILTER NFL21SP506X1C3D	C463	AD00449R	CEC220M25-EWCT
XV01	BP01191	OSCILLATOR 20HHZ HC-49US	C464	AA01814R	CCC104K25-B-16CT
XV02	BP01241	OSCILLATOR 3.58 49U	C466	AA01802R	CCC103K50-B-16CTMCH18
XV03	BP01241	OSCILLATOR 3.58 49U	C467	0800353R	CAP.-ELECTRO.470UF-M 16V
XV04	2168771	VFL-CSB503F30	C468	AA01814R	CCC104K25-B-16CT
XV05	2168771	VFL-CSB503F30	C473	0800359R	CAP.-ELECTRO. 1000UF-M 10V
XV06	BE00431R	6MHZ LOW PASS LC FILTER	C474	0800359R	CAP.-ELECTRO. 1000UF-M 10V
XV07	BE00431R	6MHZ LOW PASS LC FILTER	C475	0800359R	CAP.-ELECTRO. 1000UF-M 10V
XV08	BE00431R	6MHZ LOW PASS LC FILTER	C476	0800359R	CAP.-ELECTRO. 1000UF-M 10V
XV09	BE00431R	6MHZ LOW PASS LC FILTER	C481	AD00436R	CEC100M16-EWCT
			C482	0880009R	CAP.-POLYESTER 0.01UF-K 50V
		(PSB PW1 AUDIO)	C483	0880003R	MYLAR CAPACITOR 0.001U
			C484	0893217R	CAP 1608CHIP 4700PFKB 50V TAPE
		CAPACITORS	C485	AD00447R	CEC4R7M25-EWCT
			C486	AD00447R	CEC4R7M25-EWCT
C401	0893135R	CAP 1608CHIP 470PFJCH 50V TAPE	C487	AD00447R	CEC4R7M25-EWCT
C402	0893135R	CAP 1608CHIP 470PFJCH 50V TAPE	C488	AD00447R	CEC4R7M25-EWCT
C403	AD00447R	CEC4R7M25-EWCT	C489	AD00447R	CEC4R7M25-EWCT
C404	AD00447R	CEC4R7M25-EWCT	CF20	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE
C405	AA01814R	CCC104K25-B-16CT	CF27	0800324R	CAP.-ELECTRO. 100UF-M(SMG) 6.3V
C406	AA01814R	CCC104K25-B-16CT	CF28	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)
C407	0893211R	CAP 1608CHIP 1500PFKB 50V TAPE	CF29	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)
C408	AA01814R	CCC104K25-B-16CT	CF30	0800324R	CAP.-ELECTRO. 100UF-M(SMG) 6.3V
C409	AD00478R	CEC4R7M50-EWCT	CF31	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)
C410	AD00478R	CEC4R7M50-EWCT	CF32	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)
C411	AA01134R	CERAMIC CAPACITOR(0.33UF 6.3V)	CF33	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)
C412	AA01813R	CCC223K50-B-16CT			
C413	AA01812R	CCC153K50-B-16CT			**DIODES**
C414	AA01814R	CCC104K25-B-16CT			
C415	0893129R	CAP 1608CHIP 180PFJCH 50V TAPE	D401	CC00632R	DIODE.CHIP RB491D (20V)
C416	0893129R	CAP 1608CHIP 180PFJCH 50V TAPE	D402	CC00632R	DIODE.CHIP RB491D (20V)
C417	0800353R	CAP.-ELECTRO.470UF-M 16V	D403	CC00632R	DIODE.CHIP RB491D (20V)
C418	0893211R	CAP 1608CHIP 1500PFKB 50V TAPE	D404	CC00632R	DIODE.CHIP RB491D (20V)
C419	AA01814R	CCC104K25-B-16CT	D405	CC00003R	DIODE.CHIP 1SS355
C420	AD00447R	CEC4R7M25-EWCT	D406	CC00003R	DIODE.CHIP 1SS355
C421	AD00447R	CEC4R7M25-EWCT	D407	2339491M	DIODE AM01Z (200 TAPE) 1A
C422	AA01814R	CCC104K25-B-16CT	D408	CC00632R	DIODE.CHIP RB491D (20V)
C423	AA01814R	CCC104K25-B-16CT	D409	CC00632R	DIODE.CHIP RB491D (20V)
C424	AA01814R	CCC104K25-B-16CT	D410	CC00826R	ZENER.CHIP UDZ 7.5B
C425	AA01814R	CCC104K25-B-16CT	D411	CC00632R	DIODE.CHIP RB491D (20V)
C426	AA01814R	CCC104K25-B-16CT	D412	CC00632R	DIODE.CHIP RB491D (20V)
⚠ C427	AA01814R	CCC104K25-B-16CT	D413	CC00822R	ZENER.CHIP UDZ 5.1B

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SYMBOL NO.	PART NO.	PART DESCRIPTION
D414	CC00822R	ZENER.CHIP UDZ 5.1B
DH101	CH01042G	DIODE RK34 LF-A4
		CONNECTORS
EAD1	EA01252R	1.5MM PITCH 12P CONNECTOR BASE SM3
EAF1	EA01249R	1.5MM PITCH 10P CONNECTOR BASE
EAJ1	2959055	CONNECTOR-6P(PH)
EAS1	2902261	PLUG PIN SUB MINI 2P
EAS2	2902262	PLUG PIN SUB MINI 3P
EAS3	2959051	PIN POST (2P)
EAS4	2959051	PIN POST (2P)
EJA1	2959055	CONNECTOR-6P(PH)
EJF1	EA01246R	1.5MM PITCH 7P CONNECTOR BASE SM3
EJF2	EA01251R	1.5MM PITCH 11P CONNECTOR BASE
EJF3	EA00932R	0.5MM PITCH FPC CONNECTOR FH12-50S-0.5SV
EJF4	EA01252R	1.5MM PITCH 12P CONNECTOR BASE SM3
EJF5	EA01248R	1.5MM PITCH 9P CONNECTOR BASE SM3
EJF6	EA01247R	1.5MM PITCH 8P CONNECTOR BASE
EJP1	2902268	PLUG PIN SUB MINI 9P
EJP2	2902273	PLUGPIN SUB MINI 13P
EVJ1	ED04252U	1.27MM PITCH 5061 TYPE 80P B T
		INTEGRATED CIRCUITS
IC401	CK39281R	ANALOG MONOLITHIC IC(NJW1136)
IC402	CK35311R	NJM2192AM
IC403	CK31991R	ANALOG MONOLITHIC IC BU4052BCF-E2
IC404	CK39291R	ANALOG MONOLITHIC IC(TA2021)
IF06	CP06541F	IC REG.(SI-3033C)
IF07	CP06541F	IC REG.(SI-3033C)
IF08	CK38372R	DIGITAL MONO IC SI-3018KM
		COILS / RELAYS / HEAT SINK
L401	BH01811R	COIL 10UH 2.1A
L402	BH01811R	COIL 10UH 2.1A
L403	BH01811R	COIL 10UH 2.1A
L404	BH01811R	COIL 10UH 2.1A
L409	BZ01421R	COIL FERRITE BEAD BL02RN1-R62T4
L410	BZ01421R	COIL FERRITE BEAD BL02RN1-R62T4
L411	BA00712R	3225 CHIP COIL 47UH
L413	BZ01421R	COIL FERRITE BEAD BL02RN1-R62T4
RY401	FJ00291	RELAY DQ1SU
RY402	FJ00291	RELAY DQ1SU
N401	MA01681	PDP AUDIO HEAT SINK
J401	2672967	JAK-YKC21-1P-BLK
		TRANSISTORS
Q401	1323293R	TRS.CHIP 2SC4617 TL (R/S)
Q402	1323293R	TRS.CHIP 2SC4617 TL (R/S)
Q403	CA00981R	TRS.CHIP DTC114EE TL
Q404	CA00771R	TRS.CHIP DTC323TK
Q405	CA00771R	TRS.CHIP DTC323TK
Q407	CA00771R	TRS.CHIP DTC323TK
Q408	CA00981R	TRS.CHIP DTC114EE TL
		RESISTORS
R401	0790028R	RES.CHIP 1/16W 220 OHM
R402	0790028R	RES.CHIP 1/16W 220 OHM
R403	0790068R	RES.CHIP 1/16W 220K OHM
R404	0790068R	RES.CHIP 1/16W 220K OHM
R405	0790024R	RES.CHIP 1/16W 100 OHM
R406	0790024R	RES.CHIP 1/16W 100 OHM
R407	0790061R	RES.CHIP 1/16W 56K OHM
R408	0196096R	RES.-1608CHIP 1/16W 13K-J TAPE
R409	0196123R	RES.-1608CHIP 1/16W 160K-J TAPE
R410	0196106R	RES 1608 CHIP 1/16W 36KJ TAPE
R411	0196091R	RES.-1608CHIP 1/16W 9.1K-J TAPE
R412	0196119R	RES.-1608CHIP 1/16W 110K-J TAPE
R413	0790051R	RES.CHIP 1/16W 10K OHM
R414	0790036R	RES.CHIP 1/16W 820 OHM
R415	0790036R	RES.CHIP 1/16W 820 OHM
R416	0196077R	RES.-1608CHIP 1/16W 2.4K-J TAPE
R417	0790047R	RES.CHIP 1/16W 5.6K OHM
R418	0790037R	RES.CHIP 1/16W 1.0K OHM
R419	0790037R	RES.CHIP 1/16W 1.0K OHM
R420	0790037R	RES.CHIP 1/16W 1.0K OHM
R421	0790048R	RES.CHIP 1/16W 6.8K OHM
R422	0790048R	RES.CHIP 1/16W 6.8K OHM
R423	0790037R	RES.CHIP 1/16W 1.0K OHM
R424	0790037R	RES.CHIP 1/16W 1.0K OHM
R425	0790037R	RES.CHIP 1/16W 1.0K OHM
R426	0790037R	RES.CHIP 1/16W 1.0K OHM
R427	0196098R	RES.-1608CHIP 1/16W 16K-J TAPE
R428	0196098R	RES.-1608CHIP 1/16W 16K-J TAPE
R429	0196108R	RES.-1608CHIP 1/16W 43K-J TAPE
R430	0196108R	RES.-1608CHIP 1/16W 43K-J TAPE
R431	0113701M	RESISTOR CARBON FILM SRD1/2P-B 10-J
R432	0113701M	RESISTOR CARBON FILM SRD1/2P-B 10-J
R433	0790051R	RES.CHIP 1/16W 10K OHM
R434	0790051R	RES.CHIP 1/16W 10K OHM
R435	0790042R	RES.CHIP 1/16W 2.2K OHM
R436	0790064R	RES.CHIP 1/16W 100K OHM
R437	0790024R	RES.CHIP 1/16W 100 OHM
R438	0790059R	RES.CHIP 1/16W 47K OHM
R439	0790049R	RES.CHIP 1/16W 8.2K OHM
R440	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R441	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R442	0790052R	RES.CHIP 1/16W 12K OHM
R446	0790046R	RES.CHIP 1/16W 4.7K OHM
R447	0790046R	RES.CHIP 1/16W 4.7K OHM
R448	0790044R	RES.CHIP 1/16W 3.3K OHM
R458	0790051R	RES.CHIP 1/16W 10K OHM
R459	0790047R	RES.CHIP 1/16W 5.6K OHM
R460	0790024R	RES.CHIP 1/16W 100 OHM
R462	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R463	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608
R464	0790046R	RES.CHIP 1/16W 4.7K OHM
R465	0790064R	RES.CHIP 1/16W 100K OHM
RF58	0790024R	RES.CHIP 1/16W 100 OHM
RF59	0790024R	RES.CHIP 1/16W 100 OHM

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